SEARCH REQUEST FORM

Requestor's Name: Randy Shay Serial Number: 08/452,227

Date: 1/11/96 Phone: 308-2907 Art Unit: 3308

Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

A copy of the 2 broadest independent claims is attached (claims 1 and 21).

The method is removing or resecting a portion of at least one of two mating joint surfaces to expose a cancellous bone surface, maintaining a spacing between the two relatively movable joint surfaces (more specifically by placing a bioresorbable or biocompatible insert between the surfaces, using the joint, and permitting fibroblast growth on the cancellous surface which progresses into fibrocartilage. The implant may be lactic acid copolymer.

The inventor's name is Gerald E. Blatt.

STAFF USE ONLY

Date completed:
Searcher:
Terminal time: 101
Elapsed time:
CPU time:
Total time: 116
Number of Searches:
Number of Databases:

Search Site
- ___ STIC
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Type of Search
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- ___ Geninfo
- ___ SDC
- ___ DARC/Questel
- ✓ Other Millar

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PROG:
YOU ARE ALREADY CONNECTED TO THE MEDLINE FILE.

SS 4 /C?
USER:
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SEARCH FORMULATION BEGINNING AT SS 1 :
 ( CARTILAGE, ARTICULAR )  -- 1,316 ITEMS FOUND IN MEDLINE


SEARCH FORMULATION BEGINNING AT SS 2 :
 ( IMPLANTS, ARTIFICIAL )  -- 2,104 ITEMS FOUND IN MEDLINE


SEARCH FORMULATION BEGINNING AT SS 3 :
 ( SS  1 AND SS  2 )  -- 17 ITEMS FOUND IN MEDLINE


NO SUBHEADINGS APPLIED TO ANY SEARCH STATEMENT.

SS 4 /C?
USER:
prt full compressed include mh,ab
PROG:

1
UI  - 96024792
AU  - Dorsay TA ; Youngberg RA ; Orr FE ; Mulrean J
TI  - Cine MRI in the evaluation of the Proplast-Teflon TMJ
      interpositional implant.
LA  - Eng
MH  - Adult ; *Cartilage, Articular/PATHOLOGY ; Case Report ; Facial
      Pain/DIAGNOSIS ; Female ; Foreign-Body Migration/DIAGNOSIS ;
      Granuloma, Foreign-Body/*DIAGNOSIS ; Human ; *Implants,
      Artificial/ADVERSE EFFECTS ; *Magnetic Resonance Imaging, Cine ;
      Mandibular Condyle/PATHOLOGY ; *Polytetrafluoroethylene ;
      *Proplast ; Temporal Bone/PATHOLOGY ; *Temporomandibular Joint/
      PATHOLOGY ; Temporomandibular Joint Diseases/DIAGNOSIS
RN  - 0 (Proplast) ; 9002-84-0 (Polytetrafluoroethylene)
PT  - JOURNAL ARTICLE
AB  - Proplast-Teflon (Vitek Inc., Houston, TX, U.S.A.) interpositional
      implants (PTIPIs) have been removed from the market due to
      complications that include severe bony destruction of both
      condyle and fossa as a result of exuberant foreign body giant
      cell reaction. As per Food and Drug Administration
      recommendations, the radiologist will often be called to evaluate
      the status of these implants in the large population that
      received them. We present a case of bilateral PTIPIs with
      nonreducing anterior displacement of the meniscal prosthesis made
      more apparent by cine MRI. Extensive granulomatous reaction in
      the temporal bone exhibited mobility with cine.
SO  - J Comput Assist Tomogr 1995 Sep-Oct;19(5):800-3
CONTINUE PRINTING? (YES/NO)

USER:
y
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PROG:

2
UI - 95236314
AU - Sams AE ; Nixon AJ
TI - Chondrocyte-laden collagen scaffolds for resurfacing extensive articular cartilage defects.
LA - Eng
MH - Animal ; Arthroscopy ; Cartilage, Articular/*CYTOLOGY/PATHOLOGY/*SURGERY ; *Cell Transplantation ; *Collagen ; Horses ; *Implants, Artificial ; Joint Diseases/PATHOLOGY/SURGERY ; Knee Joint/PATHOLOGY/*SURGERY ; Phenazines ; Postoperative Period ; Staining ; Support, Non-U.S. Gov't ; Synovial Fluid/CYTOLOGY/METABOLISM
RN - 0 (Phenazines) ; 477-73-6 (safranine T) ; 9007-34-5 (Collagen)
PT - JOURNAL ARTICLE
AB - Chondrocyte-collagen composites were evaluated for resurfacing of large articular defects. Isolated chondrocytes were cultured in expanded collagen scaffolds for 7-10 days to provide a composite containing 3.6 x 10(4) cells/mm3. The graft was transplanted into 15 mm full thickness articular defects in the femoropatellar joint of 12 horses using arthroscopic techniques. Ungrafted defects in the opposite femoropatellar joint served as controls. Synovial fluid, clinical progress and pain responses were evaluated in groups of 6 horses over 4-month and 8-month periods. Following termination, gross, histochemical and histologic evaluations of the repair tissues and synovial membrane were performed. Arthroscopic defect debridement and chondrocyte implantation resulted in minimal post-operative effusion or pain, and synovial fluid constituents were not significantly different in grafted and ungrafted joints. Gross differences in grafted defects were not apparent. Increased chondrocyte numbers and cartilage histochemical staining were evident in the deeper layers of grafted defects, whereas ungrafted defects were almost entirely fibrous tissue. The surface layers of grafted defects were fibrous tissue. There were no synovial fluid cellular responses, synovial membrane histiocytic reaction or subchondral bone infiltrates to suggest immune-related reaction to the allograft cells. Chondrocyte-collagen grafts were arthroscopically implanted and resulted in improved cartilage healing in extensive defects. However, the structural organization of the surface layers was inadequate and suggested poor long-term durability.
SO - Osteoarthritis Cartilage 1995 Mar;3(1):47-59
CONTINUE PRINTING? (YES/NO)

PROG:

3
UI - 95314656
AU - Pagnani MJ ; Speer KP ; Altchek DW ; Warren RF ; Dines DM
TI - Arthroscopic fixation of superior labral lesions using a biodegradable implant: a preliminary report.
LA - Eng
MH - Adolescence ; Adult ; *Arthroscopy ; Biodegradation ; Cartilage, Articular/*SURGERY ; Female ; Follow-Up Studies ; Human ; *Implants, Artificial ; Male ; Methods ; Postoperative Complications ; Range of Motion, Articular ; Shoulder Joint/*SURGERY
PT - CLINICAL TRIAL ; JOURNAL ARTICLE

AB - Twenty-two patients were treated for symptomatic lesions of the superior glenoid labrum in association with instability of the tendinous insertion of the long head of the biceps brachii. A biodegradable implant was used to fix the labrum to the bony glenoid using an arthroscopic technique. At 2-year average follow-up, satisfactory results were obtained in 86% of the patients. Two patients, both of whom had undergone concomitant subacromial decompression, continued to complain of pain after the procedure; 3 patients had restricted motion postoperatively, and 1 required manipulation under anesthesia. Twelve of 13 overhead athletes were able to return to full premorbid function. Arthroscopic fixation of unstable lesions of the superior labrum led to a resolution of symptoms in the majority of patients. There were no complications related to the use of the biodegradable implant.
SO - Arthroscopy 1995 Apr;11(2):194-8
CONTINUE PRINTING? (YES/NO)

USER:
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PROG:

4
UI - 95236315
AU - Sams AE ; Minor RR ; Wootton JA ; Mohammed H ; Nixon AJ
TI - Local and remote matrix responses to chondrocyte-laden collagen scaffold implantation in extensive articular cartilage defects.
LA - Eng
MH - Animal ; Bone Matrix/*PHYSIOPATHOLOGY ; Cartilage, Articular/*CYTOLOGY/METABOLISM/PATHOLOGY ; *Cell Transplantation ; *Collagen/METABOLISM ; Glycosaminoglycans/METABOLISM ; Horses ; *Implants, Artificial ; Joint Diseases/SURGERY ; Knee Joint/METABOLISM/*SURGERY ; Support, Non-U.S. Gov't ; Support, U.S. Gov't, P.H.S.
RN - 0 (Glycosaminoglycans) ; 9007-34-5 (Collagen)
PT - JOURNAL ARTICLE
AB - Chondrocyte-laden collagen scaffolds were evaluated in extensive cartilage defects in an equine model. Arthroscopic techniques were used to implant a chondrocyte-collagen culture product in 15-mm defects in the lateral trochlear ridge of the femoropatellar joint of 12 horses. Ungrafted control defects were formed in the opposite joint. Groups of six horses were terminated at 4 and 8 months after implantation and the repair sites, adjacent cartilage, and remote cartilage within each femoropatellar joint examined biochemically. Eight months following surgery the relative proportions of type II collagen in grafted and ungrafted defects, determined using the ratio of cyanogen bromide cleavage products alpha 1(II)CB10/alpha 2(I)CB3,5, were not significantly different (31.57 +/- 2.76% and 26.88 +/- 2.76%, respectively). Aggrecan content was significantly improved in grafted defects (85.61 +/- 6.51 and 74.91 +/- 10.31 micrograms/mg dry weight). Cartilage surrounding grafted defects also showed improved maintenance of cartilage glycosaminoglycan content. Thus, chondrocyte grafting in collagen scaffold vehicles improved the aggrecan content in extensive cartilage defects and surrounding normal cartilage. However, given the continued disparity between repair tissue and normal cartilage aggrecan content, and the low proportion of type II collagen in grafted defects, the utility of collagen scaffolds for chondrocyte grafting of large cartilage defects seems

limited.
SO - Osteoarthritis Cartilage 1995 Mar;3(1):61-70
CONTINUE PRINTING? (YES/NO)

USER:

PROG:

5
UI - 95035681
AU - Messner K
TI - Durability of artificial implants for repair of osteochondral defects of the medial femoral condyle in rabbits.
LA - Eng
MH - Animal ; Biomechanics ; *Bone Substitutes ; *Bone Transplantation ; Cartilage Diseases/*SURGERY ; Cartilage, Articular/*SURGERY ; Comparative Study ; Drug Stability ; Femur/*SURGERY ; *Implants, Artificial ; Knee Joint/*SURGERY ; *Knee Prosthesis ; *Polyethylene Terephthalates ; *Polytetrafluoroethylene ; Rabbits ; Support, Non-U.S. Gov't
RN - 0 (Bone Substitutes) ; 0 (Polyethylene Terephthalates) ; 9002-84-0 (Polytetrafluoroethylene)
PT - JOURNAL ARTICLE
AB - Full-thickness osteochondral defects in the femoral condyles of 25 rabbits were repaired using artificial implants made of Teflon or Dacron. The 6 and 12 month results were compared with ungrafted defects (natural repair) and periosteal grafting. Throughout the observation period, all repair sites were three-fold more compliant than normal cartilage ($P < 0.01$). The adjacent cartilage was unaffected. Splits between the repair sites and the adjacent cartilage were common. At 6 months, the Dacron repairs had higher scores than natural repair ($P < 0.05$). Between 6 and 12 months, no significant change in appearance was noted for the artificial repairs. At 1 yr, the scores for natural and Dacron repairs were similarly high, but natural repair had more surface fibrillation ($P < 0.05$). Periosteal grafting had a lower score than Dacron repair ($P < 0.01$). Synovitis and artificial debris tended to decrease with time (n.s., $P < 0.06$). In the present model, Dacron repair of small cartilage defects at 1 yr showed better neocartilage quality than periosteal grafting. Dacron had earlier neocartilage formation than unrepaired defects, and showed no late deterioration, but normal cartilage mechanics and morphology were not attained.
SO - Biomaterials 1994 Jul;15(9):657-64
CONTINUE PRINTING? (YES/NO)

USER:
y
PROG:

6
UI - 95030097
AU - Vacanti CA ; Kim W ; Schloo B ; Upton J ; Vacanti JP
TI - Joint resurfacing with cartilage grown in situ from cell-polymer structures.
LA - Eng
MH - Animal ; Biodegradation ; Bromodeoxyuridine ; Cartilage, Articular/*CYTOLOGY/*TRANSPLANTATION ; Cell Transplantation/METHODS ; Femur ; Immunohistochemistry ; Implants, Artificial ; Joints/*SURGERY ; Polyglycolic Acid ; *Polymers ; Rabbits ;

Support, Non-U.S. Gov't
RN - 0 (Polymers) ; 26009-03-0 (Polyglycolic Acid) ; 59-14-3 (Bromodeoxyuridine)
PT - JOURNAL ARTICLE
AB - We tested the potential of a new technology developed in our laboratory to create new hyaline cartilage for resurfacing distal femoral joint surfaces of New Zealand White rabbits that had been surgically denuded of articular cartilage. We removed hyaline cartilage from the patellar groove of the distal femurs in 24 rabbits. Chondrocytes isolated from the excised cartilage of 12 of these rabbits (experimentals) were seeded onto synthetic biocompatible, biodegradable polymers composed of polyglycolic acid. The cells were labeled in vitro with a thymidine analog, BrdU (5-bromo-2'-deoxyuridine). After 1 week in vitro, the cell-polymer structures were implanted onto the denuded surfaces of 12 defects made in the hyaline cartilage of the contralateral knees of the experimental animals. Twelve control animals received either no implants or implants not containing cells on similar surgical defects. After 7 weeks, we found evidence of new cartilage growth in 11 of the 12 experimental animals and virtually no new cartilage formation in any of the animals in either control group. Immunohistochemical analysis demonstrated the presence of BrdU-labeled chondrocytes in representative specimens.
SO - Am J Sports Med 1994 Jul-Aug;22(4):485-8
CONTINUE PRINTING? (YES/NO)

USER:

PROG:

7
UI - 95024456
AU - Kim WS ; Vacanti CA ; Upton J ; Vacanti JP
TI - Bone defect repair with tissue-engineered cartilage.
LA - Eng
MH - Animal ; Cartilage, Articular/*CYTOLOGY/GROWTH & DEVELOPMENT ; Cattle ; *Implants, Artificial ; Male ; *Polyglycolic Acid ; Rats ; Rats, Nude ; Skull/*SURGERY ; Support, Non-U.S. Gov't
RN - 26009-03-0 (Polyglycolic Acid)
PT - JOURNAL ARTICLE
AB - We tested the efficacy of a new approach for the tissue-engineered growth of cartilage developed in our laboratory in repairing surgically created bone defects in the craniums of rats. Large cranial defects were created bilaterally in the frontoparietotemporal bones of athymic nude rats (n = 10). There was gross evidence of new cartilage in 8 of 10 experimental defects that had been filled with a synthetic biocompatible, biodegradable polymer template that had been seeded in vitro with freshly isolated chondrocytes. The control defects, filled with either nothing at all or a polymer template without chondrocytes, showed no evidence of cartilaginous repair (0 of 10). Statistical analysis using McNemar's test with pooled samples showed significant differences between the two groups ($p < 0.05$). Prior reports concerning the biologic repair of bony defects involved stimulation of adjacent mesenchymal tissue and resulted in ingrowth of new bone. To our knowledge, this is the first report of structural cartilaginous repair of a bony defect with matrix secreted by implanted chondrocytes.
SO - Plast Reconstr Surg 1994 Oct;94(5):580-4

CONTINUE PRINTING? (YES/NO)

USER:
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PROG:

8
UI - 94362162
AU - Sittinger M ; Bujia J ; Minuth WW ; Hammer C ; Burmester GR
TI - Engineering of cartilage tissue using bioresorbable polymer carriers in perfusion culture.
LA - Eng
MH - Adult ; Aged ; Antibodies, Monoclonal ; Biocompatible Materials ; Bone Resorption ; Cartilage, Articular/*CYTOLOGY/SURGERY/ TRANSPLANTATION ; Cell Adhesion ; Cells, Cultured ; Collagen/ METABOLISM ; Extracellular Matrix/TRANSPLANTATION ; Human ; *Implants, Artificial ; Microscopy, Electron ; Middle Age ; Polylysine ; Polymers ; Proteoglycans/BIOSYNTHESIS ; Support, Non-U.S. Gov't
RN - 0 (Antibodies, Monoclonal) ; 0 (Biocompatible Materials) ; 0 (Polymers) ; 0 (Proteoglycans) ; 25104-18-1 (Polylysine) ; 9007-34-5 (Collagen)
PT - JOURNAL ARTICLE
AB - Bioresorbable polymer fleeces with a high internal surface area were used as temporary matrices to establish three-dimensional cultures of isolated human articular chondrocytes. The polymer surface was coated with poly-L-lysine to support cell attachment. The resulting cell-polymer tissues were cultured in perfusion culture chambers to achieve a constant supply of nutrients by diffusion. Retention and accumulation of extracellular matrix components synthesized by the chondrocytes were improved by encapsulation of the cell-polymer integrate in agarose gel. The cell-polymer tissues formed abundant collagen fibrils in vitro with a typical cross-triation clearly visible in electron microscopy analysis. Chondrocytes and intercellular matrix stained positively with monoclonal antibodies specific for differentiated chondrocytes and type II collagen. Synthesis of proteoglycans and collagen was also evident by further analysis with alcian blue and azan staining of cell-polymer tissue sections. The presented experimental tissue culture technique offers a novel concept for the in vitro formation of vital cartilage implants for reconstructive surgery or treatment of destructive joint diseases and possibly for the in vitro engineering of human tissues in general, with applications in drug testing and replacement of animal experiments.
SO - Biomaterials 1994 May;15(6):451-6
CONTINUE PRINTING? (YES/NO)

PROG:

9
UI - 94302466
AU - Gola R ; Chossegros C ; Cheynet F ; Carreau JP
TI - [Current surgical approach to masticatory system pain-dysfunction syndrome (except arthroscopy)]
LA - Fre
MH - Arthroscopy ; Cartilage, Articular/SURGERY ; Electrocoagulation ; English Abstract ; Human ; Implants, Artificial ; Joint Prosthesis ; Ligaments, Articular/SURGERY ; Mandibular Condyle/ SURGERY ; Osteotomy/METHODS ; Recurrence ; Reoperation ; Surgical

Flaps/METHODS ; Suture Techniques ; Temporal Bone/SURGERY ; Temporomandibular Joint/SURGERY ; Temporomandibular Joint Syndrome/*SURGERY ; Treatment Outcome
PT - JOURNAL ARTICLE
AB - The surgical treatment of SADAM concerns patients with irreversible lesions who continue to complain (disk displacement with pain and limited opening, painful arthrosis) after all the other therapeutic options have been unsuccessful and when no long-lasting improvement can be reasonable expected. Indications for surgery have declined with progress in aetiological treatment, particularly of occlusion, and arthroscopic treatment, but arthrotomy is the only remaining technique feasible in certain cases. SADAM should be a conservative surgery, protecting the disk (repositioning displaced disks, repairing perforated disks) and the articular surfaces (correcting bone irregularities). Anatomic and functional reconstruction of the joint cannot be successful unless the cause of the dysfunction is treated at the same time.
SO - Rev Stomatol Chir Maxillofac 1994;95(3):241-54
CONTINUE PRINTING? (YES/NO)

USER:
y
PROG:

10
UI - 94205968
AU - Aho AJ ; Heikkila J ; Aho HJ ; Andersson O ; Yli-Urpo A
TI - Morphology of osteogenesis in bioactive glass interface.
LA - Eng
MH - Animal ; Cartilage, Articular/PATHOLOGY ; Female ; *Glass ; *Implants, Artificial ; Joints/PATHOLOGY ; Male ; Microscopy, Electron, Scanning ; Osseointegration/*PHYSIOLOGY ; Osteogenesis/*PHYSIOLOGY ; Rabbits ; Support, Non-U.S. Gov't
RN - 0 (Glass)
PT - JOURNAL ARTICLE
AB - Bone formation around bioactive glass implants (S56.5P4) in the trabeculous subchondral bone in the distal femur of rabbits was studied by histology and scanning electron microscopy. Three types of tissue: bone, connective and hematopoietic tissue developed around the implants resulting in lamellar new bone covering 76% of the surface of the implants at twelve weeks. Bone formation around implants began as woven bone changing mainly to lamellar, osteon like new bone in contact with the S56.5P4 surface. Endochondral ossification was absent. In the area of bone containing hematopoietic tissue, new bone grew often as a thin layer along the implant surface. However, bone seemed to form adjacent to the implant surface through osteo-conduction. Only 21% of the implant surface was covered by loose connective tissue. Some proteoglycan containing thin fluid filled spaces were seen ten days after implantation. In few areas with apparent breakdown of the implant surface decreased amount or no bone formation was observed. Von Kossa method stained the reaction layer as two parallel dark brown lines, toluidine blue as two blue stripes, whereas van Gieson did not stain the reaction layer at all. In conclusion, the present histological results indicate bone bonding, which is a physico-chemical process observed between S56.5P4 implant and host bone.
SO - Ann Chir Gynaecol Suppl 1993;207:145-53
CONTINUE PRINTING? (YES/NO)

USER:

PROG:

11
UI - 94156909
AU - Messner K
TI - Hydroxylapatite supported Dacron plugs for repair of isolated full-thickness osteochondral defects of the rabbit femoral condyle: mechanical and histological evaluations from 6-48 weeks.
LA - Eng
MH - Animal ; Biomechanics ; Cartilage, Articular/PATHOLOGY/*PHYSIOLOGY ; *Durapatite ; Femur/PATHOLOGY/*PHYSIOLOGY ; *Implants, Artificial ; *Polyethylene Terephthalates ; Rabbits ; Regeneration/*PHYSIOLOGY ; Support, Non-U.S. Gov't ; Time Factors
RN - 0 (Polyethylene Terephthalates) ; 1306-06-5 (Durapatite)
PT - JOURNAL ARTICLE
AB - The early degeneration of neocartilage commonly observed after experimental cartilage repair is attributed in part to the impaired cartilage-bone mechanics caused by an insufficient regrowth of the subchondral bone plate. In order to enhance bone regrowth after cartilage repair Dacron plugs supported by hydroxylapatite were implanted into 3 mm diameter full-thickness defects of both medial femoral condyles in 21 rabbits. In addition, the plug in one knee of each animal was wrapped with autologeous periosteum from the proximal tibia. The repair sites were evaluated at 6, 12, 24, and 48 weeks. Except for the mechanics of the repair site at 24 weeks additional periosteum did not improve the overall results. In specimens with additional periosteum the compression compliance of the repair sites improved gradually from abnormal high to almost normal values at 24 weeks, but were found softened again at 48 weeks. All other repairs were softer than normal cartilage at all time intervals. In all specimens a well-defined but irregularly shaped, subchondral bone plate had developed by 12 weeks. The neocartilage was initially thicker than normal cartilage, but the thickness decreased gradually and reached normal values by 48 months. Neocartilage formation with moderate morphological scores appeared already at 6 weeks, but the scores did not improve with time. High variations in quality of the regenerated tissue, from insufficient regeneration to hyaline-like cartilage, were found at all time intervals, but none of the specimens had developed normal cartilage. Most knees had a low-grade synovitis and some had particle debris.
SO - J Biomed Mater Res 1993 Dec;27(12):1527-32
CONTINUE PRINTING? (YES/NO)

USER:
y
PROG:

12
UI - 94146224
AU - Oxley HR ; Corkhill PH ; Fitton JH ; Tighe BJ
TI - Macroporous hydrogels for biomedical applications: methodology and morphology.
LA - Eng
MH - Animal ; *Biocompatible Materials ; Cartilage, Articular/CYTOLOGY ; Cell Adhesion ; Cell Division ; Cell Line ; Cell Separation ;

Cross-Linking Reagents/CHEMISTRY ; Crystallization ; Gels ; Implants, Artificial ; *Membranes, Artificial ; Methacrylates/ CHEMISTRY ; Mice ; Microscopy, Electron, Scanning ; Polyethylene Glycols ; Polymers ; Porosity ; 3T3 Cells
RN - 0 (Biocompatible Materials) ; 0 (Cross-Linking Reagents) ; 0 (Gels) ; 0 (Methacrylates) ; 0 (Polyethylene Glycols) ; 0 (Polymers) ; 868-77-9 (hydroxyethyl methacrylate)
PT - JOURNAL ARTICLE
AB - Macroporous hydrogel membranes have been fabricated using two complementary techniques, both involving the polymerization of a solution of monomers around a crystalline matrix which is subsequently removed. The first of these is the freeze-thaw technique, in which aqueous systems are used to form ice-based crystalline matrices. Whereas in the second, the porosigen technique, a crystalline compound (e.g. sucrose) is dispersed in the monomer solution prior to polymerization. Both copolymer composition and the polymerization conditions were found to influence membrane morphology and the limitations in the range of morphologies attainable using each technique are discussed. Careful choice of technique and polymerization conditions enables macroporous hydrogels with a wide range of morphologies to be fabricated, which are potentially valuable in a variety of biomedical applications. The suitability of these techniques described for the production of materials for use in affinity chromatography, as cell separation substrates and as synthetic articular cartilage as well as more general areas of biomedicine, is discussed.
SO - Biomaterials 1993 Nov;14(14):1064-72
CONTINUE PRINTING? (YES/NO)

USER:

PROG:

13
UI - 94125246
AU - Wolford LM ; Cottrell DA ; Henry C
TI - Sternoclavicular grafts for temporomandibular joint reconstruction.
LA - Eng
MH - Adolescence ; Adult ; Arthritis/SURGERY ; Bone Transplantation/ *METHODS ; Cartilage, Articular/TRANSPLANTATION ; Cephalometry ; Child ; Child, Preschool ; Clavicle/*TRANSPLANTATION ; Facial Asymmetry/ETIOLOGY/SURGERY ; Female ; Follow-Up Studies ; Human ; Implants, Artificial/ADVERSE EFFECTS ; Male ; Mandible/ ABNORMALITIES ; Middle Age ; Polytetrafluoroethylene/ADVERSE EFFECTS ; Proplast/ADVERSE EFFECTS ; Range of Motion, Articular ; Reoperation ; Retrognathism/COMPLICATIONS ; Retrospective Studies ; Sternoclavicular Joint/*SURGERY ; Temporomandibular Joint Diseases/ETIOLOGY/*SURGERY ; Treatment Outcome
RN - 0 (Proplast) ; 9002-84-0 (Polytetrafluoroethylene)
PT - JOURNAL ARTICLE
AB - This study evaluated the long-term outcomes of 52 sternoclavicular grafts for temporomandibular joint (TMJ) reconstruction in 38 patients. Patients were divided into three groups according to preoperative diagnosis and evaluated an average of 45 months (range, 10 to 84 months) postsurgery. Group 1 consisted of 14 patients (24 joints) with previous Proplast/Teflon implants (P/T; Vitek, Inc, Houston, TX;); successful reconstruction was achieved in only four patients

(29%) and seven joints (29%). Group 2 included 10 patients (14 joints) with inflammatory TMJ pathology (non-P/T); success occurred in five patients (50%) and eight joints (57%). Group 3 consisted of 14 patients (14 joints) with non-P/T and noninflammatory TMJ pathology. Success in this group occurred in 13 patients (93%) and 13 joints (93%), with only one failure. The results of this study support the use of the sternoclavicular graft for TMJ reconstruction in a select group of patients and demonstrate a high failure rate in patients with previous P/T implants.
SO - J Oral Maxillofac Surg 1994 Feb;52(2):119-28; discussion 128-9
CONTINUE PRINTING? (YES/NO)

USER:
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PROG:

14
UI - 94107820
AU - Corkhill PH ; Fitton JH ; Tighe BJ
TI - Towards a synthetic articular cartilage.
LA - Eng
MH - Animal ; Biomechanics ; Cartilage, Articular/*CHEMISTRY/CYTOLOGY ; Cell Adhesion/PHYSIOLOGY ; Comparative Study ; *Implants, Artificial ; Models, Chemical ; Polyethylene Glycols/*CHEMISTRY ; Polymers/*CHEMISTRY/CHEMICAL SYNTHESIS ; Porosity ; Rabbits
RN - 0 (Polyethylene Glycols) ; 0 (Polymers) ; 25852-47-5 (Hydrogel)
PT - JOURNAL ARTICLE
AB - The physical and morphological properties of articular cartilage have been used as a model for the preparation of hydrogel based synthetic analogues of this complex high water content natural hydrogel. The relatively poor strength and stiffness of simple homogeneous hydrogels have been enhanced by semi-interpenetrating polymer network (semi-IPN) technology to a level which enables the mechanical properties of natural cartilage to be approached. Maintenance of chondrocytic phenotypes at the implant interface in vitro has been found to require careful control of pore size and distribution in the hydrogel matrix. The study of synthetic techniques for the fabrication of macroporous semi-IPNs has enabled hydrogel semi-IPNs with appropriate pore sizes and mechanical properties to be produced. A range of in vitro testing techniques have been developed to enable the physico-chemical properties of these materials to be optimised prior to animal studies.
SO - J Biomater Sci Polym Ed 1993;4(6):615-30
CONTINUE PRINTING? (YES/NO)

PROG:

15
UI - 93132002
AU - Freed LE ; Marquis JC ; Nohria A ; Emmanual J ; Mikos AG ; Langer R
TI - Neocartilage formation in vitro and in vivo using cells cultured on synthetic biodegradable polymers.
LA - Eng
MH - Animal ; Biodegradation ; Cartilage/*CYTOLOGY/SECRETION/TRANSPLANTATION ; Cartilage, Articular/CYTOLOGY/SECRETION/TRANSPLANTATION ; Cattle ; Cells, Cultured ; Comparative Study ; Extracellular Matrix/SECRETION ; Feasibility Studies ; Human ;

*Implants, Artificial ; *Lactates ; Mice ; Mice, Nude ; *Polyglycolic Acid ; *Polymers ; Ribs/CYTOLOGY ; Support, U.S. Gov't, P.H.S. ; Time Factors ; Transplantation, Heterologous
RN - 0 (Lactates) ; 0 (Polymers) ; 26009-03-0 (Polyglycolic Acid) ; 26100-51-6 (poly(lactic acid))
PT - JOURNAL ARTICLE
AB - Cartilaginous implants for potential use in reconstructive or orthopedic surgery were created using chondrocytes grown on synthetic, biodegradable polymer scaffolds. Chondrocytes isolated from bovine or human articular or costal cartilage were cultured on fibrous polyglycolic acid (PGA) and porous poly(L)lactic acid (PLLA) and used in parallel in vitro and in vivo studies. Samples were taken at timed intervals for assessment of cell number and cartilage matrix (sulfated glycosaminoglycan [S-GAG], collagen). The chondrocytes secreted cartilage matrix to fill the void spaces in the polymer scaffolds that were simultaneously biodegrading. In vitro, chondrocytes grown on PGA for 6 weeks reached a cell density of 5.2 x 10(7) cells/g, which was 8.3-fold higher than at day 1, and equalled the cellularity of normal bovine articular cartilage. In vitro, the cell growth rate was approximately twice as high on PGA as it was on PLLA; cells grown on PGA produced S-GAG at a high steady rate, while cells grown on PLLA produced only minimal amounts of S-GAG. These differences could be attributed to polymer geometry and biodegradation rate. In vivo, chondrocytes grown on both PGA and PLLA for 1-6 months maintained the three-dimensional (3-D) shapes of the original polymer scaffolds, appeared glistening white macroscopically, contained S-GAG and type II collagen, and closely resembled cartilage histologically. These studies demonstrate the feasibility of culturing isolated chondrocytes on biodegradable polymer scaffolds to regenerate 3-D neocartilage.
SO - J Biomed Mater Res 1993 Jan;27(1):11-23
CONTINUE PRINTING? (YES/NO)

USER:
y
PROG:

16
UI - 93386042
AU - Robinson D ; Efrat M ; Mendes DG ; Halperin N ; Nevo Z
TI - Implants composed of carbon fiber mesh and bone-marrow-derived, chondrocyte-enriched cultures for joint surface reconstruction.
LA - Eng
MH - Animal ; *Bone Marrow ; Carbon/*THERAPEUTIC USE ; Cartilage/CYTOLOGY ; Cartilage, Articular/*PHYSIOLOGY ; Cells, Cultured ; Femur ; *Implants, Artificial ; Male ; Rabbits ; *Regeneration ; Support, Non-U.S. Gov't ; Support, U.S. Gov't, Non-P.H.S.
RN - 0 (Grafil) ; 7440-44-0 (Carbon)
PT - JOURNAL ARTICLE
AB - The current study integrates two distinct approaches in joint resurfacing into a combined type of implant, composed of carbon fiber mesh impregnated and coated with a hyaluronic-acid-based delivery substance containing cultured cells. Rabbit autogeneic chondrocyte-enriched cultures obtained from mesenchymal stem cells (chondroprogenitor cells) derived from adult rabbit bone marrow were grown in vitro under conditions favoring chondrogenesis. The improvement in quality of repair when a combined implant containing both cells and a carbon scaffold was used, in comparison to the utilization of carbon fiber mesh

alone, was clearly demonstrated using clinical, histological, biochemical, and biomechanical examinations. Evaluations of the joints were performed at 6 weeks and 6 months after implantation. The repair tissue in the cell-implanted joints consisted of a typical hyaline cartilage, which was more cellular and thicker than the repair tissue in the hyaluronic-acid-impregnated carbon-fiber-implanted control joints. The hyaline cartilage in the experimental group formed a superficial layer above the carbon fibers, flush with the joint surface. In the controls, in which carbon fiber and the delivery substance alone were implanted, a histologically and biochemically fibrous tissue that was inferior biomechanically to the new cartilage was formed by the cells containing implants.

SO - Bull Hosp Jt Dis 1993 Spring;53(1):75-82

CONTINUE PRINTING? (YES/NO)

PROG:

17

UI - 93320207

AU - Messner K ; Gillquist J

TI - Synthetic implants for the repair of osteochondral defects of the medial femoral condyle: a biomechanical and histological evaluation in the rabbit knee.

LA - Eng

MH - Animal ; Biomechanics ; Bone Diseases/*SURGERY ; Bone Transplantation/*METHODS ; Cartilage Diseases/*SURGERY ; Cartilage, Articular/CYTOLOGY/*SURGERY ; Comparative Study ; Evaluation Studies ; Femur/*SURGERY ; *Implants, Artificial ; Knee Joint/*SURGERY ; *Knee Prosthesis ; Periosteum/SURGERY ; Polytetrafluoroethylene ; Polyurethanes ; Rabbits ; Tibia/SURGERY

RN - 0 (Polyurethanes) ; 9002-84-0 (Polytetrafluoroethylene)

PT - JOURNAL ARTICLE

AB - Polyurethane-coated and uncoated polytetrafluoroethylene (PTFE) (Teflon) and polyester (Dacron) felts were used for repair of full-thickness cartilage defects in the rabbit knee. At 3 months the indentation characteristics and the histological appearance of the repairs were compared with those of a sham-operation, natural repair, and periosteal grafting. Joint compressive load-displacement and indentation characteristics of the cartilage adjacent to the defect were normal for all alternatives. All the repair sites had a higher compliance than had normal cartilage-bone, but synthetic grafting had values closer to normal than periosteal grafting. The adjacent cartilage appeared macroscopically normal, except with periosteal grafting and coated PTFE implants where it showed surface irregularities in some cases. With periosteal and uncoated synthetic implants the defects were completely filled, but not in the natural repair sites. Most of the coated implants failed by separation within the implant. On histological examination, ingrowth of trabecular bone from the base of the defect into the synthetic material was seen in all the specimens. The neocartilage 'score' was equally low with all the repairs reaching only one-third of the maximum points. All the repairs were associated with synovitis. Further, some of the knees with the synthetic materials repair had debris particles in the synovium. We conclude that none of the biological resurfacing techniques described achieved normal articular cartilage characteristics at 3 months, although the compliance of the repair site was closer to normal with synthetic than with periosteal grafting.

SO - Biomaterials 1993 Jun;14(7):513-21

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6
UI - 95335204
AU - Bujia J ; Sittinger M ; Minuth WW ; Hammer C ; Burmester G ; Kastenbauer E
TI - Engineering of cartilage tissue using bioresorbable polymer fleeces and perfusion culture.
LA - Eng
MH - *Biomedical Engineering ; *Cartilage/CYTOLOGY ; Cells, Cultured ; Collagen/BIOSYNTHESIS ; Human ; Microscopy, Electron ; Nose/*SURGERY ; *Polymers ; Proteoglycans/BIOSYNTHESIS ; Support, Non-U.S. Gov't ; Tissue Transplantation ; Transplantation, Autologous
RN - 0 (Polymers) ; 0 (Proteoglycans) ; 9007-34-5 (Collagen)
PT - JOURNAL ARTICLE
AB - Replacement of injured or diseased skeletal tissues by either autograft or allograft cartilage has increased steadily during recent decades. The ideal method is to use autologous cartilage; however, this is extremely limited due to the scarcity of donor sites. We present a new approach to the in vitro formation of cartilage grafts for autologous grafting in reconstructive surgery. Bioresorbable polymer fleeces of polylactic acid were used as temporary cell carrier matrices to establish three-dimensional cultures of human chondrocytes. The polymer surface was coated with poly-L-lysine before cell integration. These cell-polymer tissue constructs were encapsulated with low melting point agarose and then placed in perfusion culture chambers to provide a constant supply of nutrients into the cultures. The culture medium consisted of Ham's F12 supplemented with 2% fetal calf serum and 50 micrograms/ml ascorbic acid. The cell-polymer tissues were harvested and frozen for toloudine and alcian blue staining as well as electron microscopic examination after different periods of time in culture. A monoclonal antibody specific for collagen type II was used to characterize the cell phenotype. With this culture procedure chondrocytes maintained a differentiated phenotype with synthesis of collagen and proteoglycan. Collagen fibrils with clear cross-striation were evident in electron microscopic images. The results show that our organotypic cell culture method allows the in vitro production of bioartificial cartilage for transplantation.
SO - Acta Otolaryngol (Stockh) 1995 Mar;115(2):307-10

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1
UI - 93004032
AU - Klompmaker J ; Jansen HW ; Veth RP ; Nielsen HK ; de Groot JH ; Pennings AJ
TI - Porous polymer implants for repair of full-thickness defects of articular cartilage: an experimental study in rabbit and dog.
LA - Eng
MH - Animal ; Cartilage, Articular/PATHOLOGY/*SURGERY ; Collagen/PHYSIOLOGY ; Dogs ; *Implants, Artificial/CLASSIFICATION ; *Polymers/CLASSIFICATION ; Rabbits
RN - 0 (Polymers) ; 9007-34-5 (Collagen)
PT - JOURNAL ARTICLE
AB - Full-thickness defects of articular cartilage were repaired by implantation of porous polymer implants in rabbits and dogs. The quality of the repair tissue was determined by collagen typing with antibodies. Implants with varying pore sizes and chemical composition were used. The effect of loading and motion was determined by inserting implants higher than, level with and lower than the surrounding cartilage. It appeared that healing took place by formation of fibrocartilaginous repair tissue containing both type I and type II collagen. Hyaline cartilage was observed in a minority of the rabbits used but not in the dog. Fibrocartilage formation in the dog was simulated by implantation of a porous polymer. Chemical composition of the polymer did not alter the results, neither did loading of the implant. It is concluded that the formation of fibrocartilaginous repair cartilage is stimulated by implantation of a porous polymer. This tissue seemed to function adequately in the dog but did show signs of degeneration in the rabbit.
SO - Biomaterials 1992;13(9):625-34
CONTINUE PRINTING? (YES/NO)

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y
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2
UI - 92235755
AU - Klompmaker J ; Jansen HW ; Veth RP ; Nielsen HK ; de Groot JH ; Pennings AJ ; Kuijer R
TI - Meniscal repair by fibrocartilage? An experimental study in the dog.
LA - Eng
MH - Animal ; Bone Regeneration/*PHYSIOLOGY ; Cartilage, Articular/*PHYSIOLOGY ; Collagen/ANALYSIS ; Dogs ; Implants, Artificial ; Menisci, Tibial/CHEMISTRY/CYTOLOGY/*PHYSIOLOGY ; Polyurethanes ; Support, Non-U.S. Gov't
RN - 0 (Polyurethanes) ; 9007-34-5 (Collagen)
PT - JOURNAL ARTICLE
AB - Longitudinal lesions in the avascular part of the dog's meniscus were repaired by implantation of a porous polyurethane. Ingrowing

repair tissue was characterized by biochemical and immunological analysis. Histologically, repair tissue initially was composed of fibrous tissue containing type I collagen. After 3 months, fibrocartilaginous tissue developed inside the implants, whereas control defects only showed fibrous repair tissue. Both type I and II collagen, the major collagen types of normal meniscal fibrocartilage, could be detected in this newly formed fibrocartilage. It is concluded that fibrocartilage resembling normal meniscal tissue is formed and that longitudinal lesions can be healed after meniscal repair by implantation of a porous polymer.
SO - J Orthop Res 1992 May;10(3):359-70
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3
UI - 92122040
AU - Fontenot MG ; Kent JN
TI - In vitro wear performance of Proplast TMJ disc implants.
LA - Eng
MH - *Cartilage, Articular/PHYSIOLOGY ; Human ; *Implants, Artificial ; Joint Prosthesis ; Mandibular Condyle/PHYSIOLOGY ; Materials Testing ; Movement ; Pressure ; Proplast/*CHEMISTRY ; Prosthesis Failure ; Stress, Mechanical ; Surface Properties ; *Temporomandibular Joint/PHYSIOLOGY
RN - 0 (Proplast)
PT - JOURNAL ARTICLE
AB - This study investigates the in vitro wear performance of Proplast-Teflon Interpositional Implants (PTIPI; Vitek, Inc, Houston, TX), employing a mechanical TMJ simulator. Predictions of in vivo service life of PTIPIs are presented based on the in vitro wear testing data. Commonly employed laboratory testing methodologies are discussed in the development of alloplastic TMJ devices. Penetrative wear rates of the PTIPI at a 20-lb (9.1 kg) load were calculated to be 2.29 mm/100,000 cycles, yielding a predicted in vivo service life of PTIPIs of approximately 3 years. These results combined with reported clinical fate of this implant indicate that the intermediate- and long-term survival of this implant are uncertain.
SO - J Oral Maxillofac Surg 1992 Feb;50(2):133-9

4
UI - 92289075
AU - Tucker MR ; Watzke IM
TI - [Autogenous auricular cartilage grafts after TMJ discectomy. A comparative study with and without silastic implants]
LA - Ger
MH - Animal ; Biocompatible Materials ; Cartilage, Articular/*SURGERY ; Comparative Study ; Ear Cartilages/*TRANSPLANTATION ; English Abstract ; Implants, Artificial ; Macaca fascicularis ; *Silicones ; Temporomandibular Joint/*SURGERY
RN - 0 (Biocompatible Materials) ; 0 (Silicone Elastomers) ; 0 (Silicones)
PT - JOURNAL ARTICLE
AB - Following TMJ discectomy an interposed autogenous graft is to be preferred. In our study we examined the effect of short-term Silastic grafts on the surrounding tissue. When the silicone

material was removed 12 weeks after surgery, foreign body granulations were present only in those cases where the Silastic surface had been mechanically roughened.
SO - Dtsch Z Mund Kiefer Gesichtschir 1991 Nov-Dec;15(6):418-20
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5
UI - 92056886
AU - Kang HJ ; Han CD ; Kang ES ; Kim NH ; Yang WI
TI - An experimental intraarticular implantation of woven carbon fiber pad into osteochondral defect of the femoral condyle in rabbit.
LA - Eng
MH - Animal ; *Carbon ; Cartilage, Articular/SURGERY/*ULTRASTRUCTURE ; *Implants, Artificial ; Knee Joint/SURGERY/*ULTRASTRUCTURE ; Microscopy, Electron, Scanning ; Rabbits
RN - 0 (Grafil) ; 7440-44-0 (Carbon)
PT - JOURNAL ARTICLE
AB - The defects of the articular cartilage structure are not replaced unless the subchondral plate has been breached. However, following the creation of a defect in the subchondral plate, the area is filled in with a fibrous tissue which gradually transforms to hyaline cartilage. The porous nontoxic materials of both biologic and synthetic origin have reportedly been used as matrices for repairing bone and cartilage. Following implantation, carbon fibre, chemically inert and well-tolerated by the body, induces a proliferation of ordered fibrous tissue. We implanted carbon fiber pads in osteochondral defects in rabbits. Those repairs were compared to control holes with no implants. The pads appeared to induce the gross appearance of a restored joint surface, mechanically strong to loading for periods from 2 to 6 weeks. Also, carbon fiber pads promoted the healing of the osteochondral defects in the rabbit femoral condyle, supplying well-organized cartilagenous tissue over repaired subchondral bone. The use of carbon fiber pads as implant material is suggested for the restoration of articular surface in osteoarthritis and osteochondritis dissecans.
SO - Yonsei Med J 1991 Jun;32(2):108-16
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6
UI - 92021241
AU - Vacanti CA ; Langer R ; Schloo B ; Vacanti JP
TI - Synthetic polymers seeded with chondrocytes provide a template for new cartilage formation.
LA - Eng
MH - Animal ; *Cartilage, Articular/CYTOLOGY/GROWTH & DEVELOPMENT ; Cattle ; *Implants, Artificial ; Male ; Mice ; Mice, Nude ; *Polyglactin 910 ; Support, Non-U.S. Gov't ; Time Factors
RN - 34346-01-5 (Polyglactin 910)
PT - JOURNAL ARTICLE
AB - A new approach for tissue creation using synthetic biocompatible and biodegradable polymers as templates onto which cells are

seeded is presented. This report concerns the generation of homogeneous plates of stable mature cartilage in vivo. The delivery of chondrocytes on synthetic polymers configured to provide a large surface area for cell attachment and thus to allow cell function and survival by diffusion of nutrients has resulted in the creation of macroscopic plates of up to 100 mg of new cartilage subcutaneously in 19 of 21 animals. The approximate dimensions and configuration of the original templates were maintained as new cartilage was formed and the polymers resorbed.
SO - Plast Reconstr Surg 1991 Nov;88(5):753-9

7
UI - 91303279
AU - Fujita S ; Iizuka T ; Tuboi Y ; Hyou Y
TI - Synovial chondromatosis of the temporomandibular joint with immunohistochemical findings: report of a case.
LA - Eng
MH - Adult ; Cartilage, Articular/PATHOLOGY ; Case Report ; Chondromatosis, Synovial/DIAGNOSIS/IMMUNOLOGY/*PATHOLOGY ; Chondrosarcoma/DIAGNOSIS ; Diagnosis, Differential ; Female ; Histocytochemistry ; Human ; Implants, Artificial ; Temporomandibular Joint Diseases/DIAGNOSIS/IMMUNOLOGY/*PATHOLOGY
PT - JOURNAL ARTICLE
SO - J Oral Maxillofac Surg 1991 Aug;49(8):880-3
CONTINUE PRINTING? (YES/NO)

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8
UI - 91303273
AU - Thomas M ; Grande D ; Haug RH
TI - Development of an in vitro temporomandibular joint cartilage analog.
LA - Eng
MH - Animal ; *Cartilage, Articular/BLOOD SUPPLY ; Cells, Cultured ; Collagen/CHEMISTRY ; Disease Models, Animal ; Implants, Artificial ; *Joint Prosthesis ; Pilot Projects ; Rabbits ; Temporomandibular Joint Diseases/PATHOLOGY ; Wound Healing
RN - 9007-34-5 (Collagen)
PT - JOURNAL ARTICLE
AB - A method of producing an in vitro cartilage tissue analog by traditional organ culture methods in an animal model is presented. The resultant tissue analog had the clinical appearance and characteristics of the temporomandibular joint disc. Development of such an analog for in vivo autografting could provide an alternative to present methods for disc repair.
SO - J Oral Maxillofac Surg 1991 Aug;49(8):854-6; discussion 857

9
UI - 91302511
AU - Tucker MR ; Watzke IM
TI - Autogenous auricular cartilage graft for temporomandibular joint repair. A comparison of technique with and without temporary silastic implantation.
LA - Eng
MH - Adhesions/PATHOLOGY ; Animal ; Cartilage, Articular/PATHOLOGY/*TRANSPLANTATION ; Comparative Study ; Connective Tissue/PATHOLOGY ; *Implants, Artificial ; Macaca fascicularis ;

Mandibular Condyle/PATHOLOGY/SURGERY ; *Silicone Elastomers ; Temporal Bone/PATHOLOGY ; Temporomandibular Joint/PATHOLOGY/ *SURGERY ; Time Factors ; Wound Healing
RN - 0 (Silicone Elastomers)
PT - JOURNAL ARTICLE
AB - Four Macaca fascicularis monkeys underwent bilateral temporomandibular joint surgery including disc removal, condyle recontouring and disc replacement using autogenous auricular cartilage grafts. One side was treated with the cartilage graft alone while the other side was treated with a cartilage graft combined with a temporarily implanted 0.02 inch dacron-reinforced silastic sheet. The silastic sheeting was removed at twelve weeks after the initial surgery. The monkeys were sacrificed at fourteen, twenty-four, thirty-six and fifty-two weeks after the initial disc removal and cartilage grafting. The joints treated with cartilage grafts alone showed significant fibrous connective tissue adhesions which had formed between the inferior surface of the graft and the articulating surface of the condyle. In the joints treated with a cartilage graft and silastic sheeting a joint space was clearly maintained between the cartilage graft and condylar surface without the formation of fibrous connective tissue adhesions. It appears that temporary implantation of a thin silastic sheet combined with autogenous cartilage grafting may prevent the formation of fibrous connective tissue adhesions within the joint.
SO - J Craniomaxillofac Surg 1991 Apr;19(3):108-12
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PROG:

10
UI - 91097732
AU - Wilkes CH
TI - Surgical treatment of internal derangements of the temporomandibular joint. A long-term study.
LA - Eng
MH - Adolescence ; Adult ; Aged ; Arthroplasty ; Cartilage, Articular/ SURGERY ; Child ; Comparative Study ; Dislocations/ PHYSIOPATHOLOGY/RADIOGRAPHY/SURGERY ; Female ; Follow-Up Studies ; Human ; Implants, Artificial ; Joint Instability/ PHYSIOPATHOLOGY/RADIOGRAPHY/SURGERY ; Joint Prosthesis ; Male ; Middle Age ; Retrospective Studies ; Silicone Elastomers ; Temporomandibular Joint Diseases/PHYSIOPATHOLOGY/RADIOGRAPHY/ *SURGERY
RN - 0 (Silicone Elastomers)
PT - CLINICAL TRIAL ; JOURNAL ARTICLE
AB - A long-term surgical follow-up study of 176 patients (211 joints) with documented internal derangements of the temporomandibular joint was carried out. Arthrograms and tomograms were used in all cases. Forty of the patients (49 joints) were nonsurgical control patients. Diagnostic staging of the cases was accomplished as previously published. A clinical/radiologic assessment index was derived, which included seven measured parameters. Surgical patients, grouped by diagnostic stages and selected operations, were compared with each other and with control patients over the follow-up period (average, 8.1 years; range, 5 to 14 years). The surgical procedures included meniscectomy, reconstructive arthroplasty, and arthroplasty with temporary Silastic (Dow Corning Wright, Arlington, Tenn) implant. The overall success rate for surgical cases with all stages and procedures was 93.8%.

In contrast, the control group demonstrated significant clinical and radiographic progression. The surgical results were stage dependent for the same operative procedure. Significantly better success rates were obtained in early-stage cases (96.9%) than in late-stage cases (89.4%). With respect to comparison of operative procedures, it was found that reconstructive arthroplasty provided results superior to those of meniscectomy. There was no significant difference between results obtained by meniscectomy and those by arthroplasty with a temporary Silastic implant. Long-term stability was excellent in most cases. Follow-up radiographic changes for the surgical group were less than expected. On the other hand, radiographic analysis of the control group demonstrated progressive degenerative changes in 73.5% of cases. Complications over the entire study were rare. It was concluded that surgery can provide successful long-term results in the treatment of internal derangements.
SO - Arch Otolaryngol Head Neck Surg 1991 Jan;117(1):64-72
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11
UI - 90264479
AU - Karabouta I
TI - Increasing the articular eminence by the use of blocks of porous coralline hydroxylapatite for treatment of recurrent TMJ dislocation.
LA - Eng
MH - Adult ; Arthroplasty/METHODS ; Cartilage, Articular/SURGERY ; Dislocations/*SURGERY ; Female ; Follow-Up Studies ; Human ; *Hydroxyapatites ; *Implants, Artificial ; Joint Instability/SURGERY ; Temporomandibular Joint Diseases/*SURGERY ; Vertical Dimension
RN - 0 (Hydroxyapatites) ; 1306-06-5 (Durapatite)
PT - JOURNAL ARTICLE
AB - Surgical operations are performed on some patients with recurrent dislocation of the temporomandibular joint. The surgical procedures applied are usually eminectomy and augmentation of the articular eminence. In this article, a surgical procedure for increasing the articular eminence using coralline porous hydroxylapatite is described. The implant is used as an interpositional bone graft placed into a gap created by an osteotomy of the articular eminence. Meniscoplasty is performed simultaneously as an additional operation. This procedure has been performed on eight TMJ's in five patients who had had severe recurrent dislocation. The immediate and further postoperative results were highly successful and no recurrence of dislocation was observed during this period of time.
SO - J Craniomaxillofac Surg 1990 Apr;18(3):107-13
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PROG:

12
UI - 91212114
AU - Havener DL Jr ; Sexton JD ; Aragon SB
TI - Orthodontic and orthognathic management of malocclusion in a patient with history of Proplast-Teflon TMJ disc implantation.

LA - Eng
MH - Adult ; Cartilage, Articular/PHYSIOPATHOLOGY ; Case Report ; Female ; Human ; Implants, Artificial ; Joint Prosthesis/*ADVERSE EFFECTS ; Malocclusion, Angle Class I/ETIOLOGY/*THERAPY ; Orthodontics, Corrective ; Orthotic Devices ; Patient Care Planning ; *Polytetrafluoroethylene ; *Proplast ; Splints ; Temporomandibular Joint Diseases/COMPLICATIONS/*SURGERY
RN - 0 (Proplast) ; 9002-84-0 (Polytetrafluoroethylene)
PT - JOURNAL ARTICLE
SO - Orthod Rev 1990 Jul-Aug;4(4):18-32

13
UI - 91126445
AU - Hanff G ; Sollerman C ; Abrahamsson SO ; Lundborg G
TI - Repair of osteochondral defects in the rabbit knee with Gore-Tex (expanded polytetrafluoroethylene). An experimental study.
LA - Eng
MH - Animal ; Cartilage, Articular/PATHOLOGY/SURGERY ; Femur/PATHOLOGY/SURGERY ; *Implants, Artificial ; Knee Joint/PATHOLOGY/*SURGERY ; *Polytetrafluoroethylene ; Rabbits ; Support, Non-U.S. Gov't
RN - 9002-84-0 (Polytetrafluoroethylene)
PT - JOURNAL ARTICLE
AB - In 28 knee joints in 14 rabbits 4 mm circular osteochondral defects were created in each medial femoral condyle. In 24 of the knee joints 4 mm Gore-Tex (E-PTFE) patches were glued into the defects with fibrin glue. Four joints were left without implants and served as controls. In 16 joints the membrane showed good macroscopic incorporation into the joint surface. In four joints the E-PTFE patches were lying loose. In the controls the defects were covered by thin irregular layers of reparative tissue. On histological examination at 12 weeks, cells were seen proliferating through the membrane and overlying its joint facing surface with the morphological appearance of the outer layers of the normal articular surface. We conclude that Gore-Tex might be of potential value in restoring the architecture of a damaged articular surface.
SO - Scand J Plast Reconstr Surg Hand Surg 1990;24(3):217-23
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14
UI - 91037457
AU - Hattori T
TI - [Experimental investigations of osteogenesis and chondrogenesis by implant of BMP-fibrin glue mixture]
LA - Jpn
MH - Animal ; Cartilage, Articular/*GROWTH & DEVELOPMENT ; English Abstract ; Fibrin Tissue Adhesive/*ADMINISTRATION & DOSAGE ; Growth Substances/*ADMINISTRATION & DOSAGE ; *Implants, Artificial ; Mice ; Mice, Inbred AKR ; Osteogenesis/*DRUG EFFECTS ; Proteins/*ADMINISTRATION & DOSAGE
RN - 0 (bone morphogenetic protein) ; 0 (Fibrin Tissue Adhesive) ; 0 (Growth Substances)
PT - JOURNAL ARTICLE
AB - The influence of fibrin glue on ectopic osteo-chondrogenesis induced by bone morphogenetic protein (BMP), which was extracted from decalcified rabbit long bones, was investigated

histologically, radiographically, and electronmicroscopically. The mixtures, consisting of fibrin glue and BMP, were implanted between femoral biceps muscles of AKR mice. They were examined 3 days, 5 days, 1 week, and 2 weeks after implantation, respectively. The fibrin glue did not affect osteo-chondrogenesis by BMP under the mixture conditions, and new bone formation was seen almost in every implant. The fine network of fibrin glue seemed to be effective for adhesion, differentiation of BMP responding cells and was well cooperated on BMP. Fibrin glue network could control the area of osteo-chondrogenesis by BMP. It might be due to restriction of diffusion of BMP. In addition, the whole shape of the newly formed cartilage and bone was influenced by the quantity of Aprotinin administered to fibrin glue. Fibrin glue may be regarded as an effective cooperator of BMP in the case of clinical application of BMP in the future.
SO - Nippon Seikeigeka Gakkai Zasshi 1990 Sep;64(9):824-34
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PROG:

15
UI - 91011787
AU - Wagner JD ; Mosby EL
TI - Assessment of Proplast-Teflon disc replacements [published erratum appears in J Oral Maxillofac Surg 1991 Feb;49(2):220] [see comments]
LA - Eng
MH - Adult ; Aged ; Cartilage, Articular/*SURGERY ; Follow-Up Studies ; Human ; *Implants, Artificial ; *Joint Prosthesis ; Malocclusion/ETIOLOGY ; Mandible/PHYSIOPATHOLOGY ; Middle Age ; Movement ; Osteoarthritis/PHYSIOPATHOLOGY ; Pain/ETIOLOGY ; *Polytetrafluoroethylene ; *Proplast ; Prosthesis Failure ; Retrospective Studies ; Temporomandibular Joint/PHYSIOPATHOLOGY/*SURGERY ; Temporomandibular Joint Diseases/PHYSIOPATHOLOGY
RN - 0 (Proplast) ; 9002-84-0 (Polytetrafluoroethylene)
PT - JOURNAL ARTICLE
CM - Comment in: J Oral Maxillofac Surg 1991 Jul;49(7):778-9
AB - This retrospective study reports the findings in the follow-up of 31 temporomandibular joints in which Proplast-Teflon (Vitek Inc, Houston, TX) replacements were used. Among the problems noted were pain, malocclusion, restricted opening, and degenerative changes in the condyle and fossa.
SO - J Oral Maxillofac Surg 1990 Nov;48(11):1140-4

16
UI - 90354521
AU - Gundlach KK
TI - Long-term results following surgical treatment of internal derangement of the temporomandibular joint.
LA - Eng
MH - Ankylosis/PHYSIOPATHOLOGY/SURGERY ; Cartilage, Articular/PHYSIOLOGY/*SURGERY ; Female ; Follow-Up Studies ; Human ; Implants, Artificial ; Male ; Silicone Elastomers ; Temporomandibular Joint/PHYSIOLOGY/*SURGERY ; Temporomandibular Joint Diseases/PHYSIOPATHOLOGY/*SURGERY
RN - 0 (Silicone Elastomers)
PT - JOURNAL ARTICLE ; REVIEW ; REVIEW OF REPORTED CASES
RF - REVIEW ARTICLE: 26 REFS.
AB - The long-term results achieved in 31 joints by means of discoplasty or (temporary) implantation of silastic for treatment

of internal derangements are presented. These data support the philosophy of preserving the disc whenever possible. If, however, discectomy is inevitable this fibrous plate should be replaced. Interposition of a sheet of silastic for a period of 3-6 months has proven very useful as it has in surgery for ankylosis. Silastic induces formation of a scar located between fossa and condyle which is necessary for the preservation of both rotational and translatory movements. Our postoperative results have been stable for many years and the disadvantages noted by other authors have not been found in these patients.
SO - J Craniomaxillofac Surg 1990 Jul;18(5):206-9
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17
UI - 90229982
AU - Berarducci JP ; Thompson DA ; Scheffer RB
TI - Perforation into middle cranial fossa as a sequel to use of a Proplast-Teflon implant for temporomandibular joint reconstruction.
LA - Eng
MH - Cartilage, Articular/SURGERY ; Case Report ; Equipment Failure ; Female ; Human ; Implants, Artificial/*ADVERSE EFFECTS ; Middle Age ; Polytetrafluoroethylene/*ADVERSE EFFECTS ; Proplast/*ADVERSE EFFECTS ; Skull/*PATHOLOGY ; Temporomandibular Joint Diseases/SURGERY
RN - 0 (Proplast) ; 9002-84-0 (Polytetrafluoroethylene)
PT - JOURNAL ARTICLE
SO - J Oral Maxillofac Surg 1990 May;48(5):496-8

18
UI - 90221498
AU - Fridrich KL ; Fridrich HH ; Kempf KK ; Moline DO
TI - Dental implications in Ehlers-Danlos syndrome. A case report.
LA - Eng
MH - Adult ; Cartilage, Articular/SURGERY ; Case Report ; Dislocations/SURGERY ; Ehlers-Danlos Syndrome/CLASSIFICATION/COMPLICATIONS/*PHYSIOPATHOLOGY ; Female ; Human ; Implants, Artificial ; Joint Instability/PHYSIOPATHOLOGY ; Proplast ; Temporomandibular Joint Syndrome/ETIOLOGY/*SURGERY
RN - 0 (Proplast)
PT - JOURNAL ARTICLE
AB - Ehlers-Danlos syndrome is an unusual disease entity afflicting many body systems. Temporomandibular joint dysfunction has been described in an isolated number of cases. Ensuing complications should be recognized and the treatment plan modified accordingly. The following is a case report and review of the literature.
SO - Oral Surg Oral Med Oral Pathol 1990 Apr;69(4):431-5
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PROG:

19
UI - 90155611
AU - Homsy CA
TI - Recommended use of Proplast [letter; comment]
LA - Eng

MH - *Aluminum ; *Aluminum Oxide ; Biocompatible Materials ;
Cartilage, Articular/*SURGERY ; Human ; Implants, Artificial ;
*Polytetrafluoroethylene ; Temporomandibular Joint/*SURGERY
RN - 0 (proplast II) ; 0 (Biocompatible Materials) ; 1344-28-1
(Aluminum Oxide) ; 7429-90-5 (Aluminum) ; 9002-84-0
(Polytetrafluoroethylene)
PT - COMMENT ; LETTER
CM - Comment on: J Oral Maxillofac Surg 1989 Jul;47(7):689-96
SO - J Oral Maxillofac Surg 1990 Mar;48(3):328-9

20
UI - 90149117
AU - Wood DJ ; Minns RJ ; Strover A
TI - Replacement of the rabbit medial meniscus with a polyester-carbon
fibre bioprosthesis.
LA - Eng
MH - Animal ; *Carbon ; Cartilage, Articular/PATHOLOGY ; *Implants,
Artificial/ADVERSE EFFECTS ; Knee Joint/PATHOLOGY ; Menisci,
Tibial/*SURGERY ; Microscopy, Electron, Scanning ; *Polyesters ;
Prosthesis Design ; Prosthesis Failure ; Rabbits
RN - 0 (Grafil) ; 0 (Polyesters) ; 7440-44-0 (Carbon)
PT - JOURNAL ARTICLE
AB - Eighteen New Zealand white rabbits underwent prosthetic
replacement of the meniscus which was attached to the
intercondylar area of the tibia through a predrilled hole and
around the internal surface of the capsule by sutures, in one
knee, and meniscectomy alone in the contralateral knee. The
animals were killed 3 and 6 month after implantation.
Fragmentation of carbon fibres was noted in six knee joints.
Histological sections demonstrated more progressive articular
cartilage degeneration of the tibial surface which had the
meniscus removed alone (P = 0.05). The implant was incorporated
into the capsule with minimal invasion of fibrous tissue into the
interstices of the prosthesis. Scanning electron microscopy
revealed the extent of articular cartilage fibrillation which was
more evident in the area where the meniscus covered the tibia.
SO - Biomaterials 1990 Jan;11(1):13-6

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4
UI - 86211575
AU - Claes L ; Burri C ; Kiefer H ; Mutschler W
TI - [Resorbable implants for refixation of osteochondral fragments in joint surfaces]
LA - Ger
MH - Animal ; Cartilage, Articular/*INJURIES ; English Abstract ; Fracture Fixation, Internal/*INSTRUMENTATION ; *Implants, Artificial ; Joints/*INJURIES ; Male ; *Polyesters ; Sheep ; Wound Healing
RN - 0 (Polyesters) ; 31621-87-1 (Polydioxanone)
PT - JOURNAL ARTICLE
AB - Resorbable pins made of solid polydioxanone (PDS) were tested for refixation of osteochondral fragments. In both medial femoral condyles of sheep osteochondral fragments were chiselled and refixed by 3 PDS pins. After 3 months the sheep were sacrificed and healing of the fragments investigated histologically and biomechanically. Fragment dislocation was not seen in any of the cases and the cartilage surface could be described as normal. The strength of the bone healing zone reached 80% of the strength of the normal bone. The contact surface between fragment and subchondral bone showed complete bony healing. Only the border of the cartilage flake was still visible. The PDS pins had not been completely biodegraded after 3 months.
SO - Aktuelle Traumatol 1986 Apr;16(2):74-7

5
UI - 89062178
AU - Jamshidi K ; Shimizu T ; Usui Y ; Eberhart RC ; Mooney V
TI - Resorbable structured porous materials in the healing process of hard tissue defects.
LA - Eng
MH - Animal ; Bone and Bones/PATHOLOGY/*PHYSIOPATHOLOGY ; Cartilage, Articular/PATHOLOGY/*PHYSIOPATHOLOGY ; *Hydroxyapatites ; *Implants, Artificial ; *Materials Testing ; Rabbits ; Support, U.S. Gov't, P.H.S. ; Surface Properties ; *Wound Healing
RN - 0 (Hydroxyapatites) ; 1306-06-5 (Durapatite)
PT - JOURNAL ARTICLE
AB - The long-term goal of this research is to assist the resurfacing of damaged articular cartilage. Coralline hydroxyapatite (HA) was coated with a thin film of polylactide (PLa), maintaining pore structural characteristics. Cylindrical plugs (3 x 7 mm) implanted in non-load-bearing femoral and tibial diaphyses of the rabbit indicated substantial bone ingrowth at 3 weeks, with no significant difference between coated and uncoated HA in the amount and distribution of new bone. PLa-epsilon caprolactone polymeric negative replicas of coral Goniopora (G), inserted into the rabbit femur for 4 wks, showed newly formed bone grown deeply into the pores. Tight attachment of new bone to the implant and minimal inflammatory response suggested an osteocompatible reaction. In order to maintain the desirable pore structure of G

while introducing controllable degradation rate and mechanical properties, a novel technique was employed to replicate G with PLa and its co-polymers. An intermediary negative replica of G was prepared with aspirin. A co-polymer positive replica of G was then prepared by solution or melt infusion into the negative replica; the aspirin was removed by methanol. A macro- (300-500 microns) and microporous (5-15 microns) structure was prepared by freeze-drying. This replica received appreciable bone ingrowth when implanted in the rabbit tibia for 3 wks. Our results demonstrate the feasibility of creating devices with interconnected pore structures and controlled porosity, elasticity, and mechanical strength sufficient for articular cartilage application, osteocompatibility, and controlled degradation rate.

SO - ASAIO Trans 1988 Jul-Sep;34(3):755-60

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7

UI - 87060277

AU - Garcia F ; Mitrovic DR

TI - Joint reaction to polyethylene implantation: a method for inducing osteoarthritic change and osteophyte formation in the rabbit knee joint.

LA - Eng

MH - Animal ; Cartilage, Articular/PATHOLOGY ; Extremities ; *Implants, Artificial ; Knee Joint ; Male ; Models, Biological ; Ossification, Heterotopic/*PATHOLOGY ; Osteoarthritis/ETIOLOGY/ *PATHOLOGY/RADIOGRAPHY ; *Polyethylenes ; Rabbits ; Support, Non-U.S. Gov't ; Synovial Membrane/PATHOLOGY

RN - 0 (Polyethylenes)

PT - JOURNAL ARTICLE

AB - Joint lesions were induced by implantation of a rigid piece of polyethylene sutured under the patella and quadriceps tendon of the rabbit's right knee. Compared to the left sham-operated knee, follow-up studies revealed progressive changes that consisted of early and transient synovial hyperemia and proliferation and late osteoarthritis. By day 7 after surgery, soft synovial-like tissue proliferated around the implant and the articular margins of the femoral trochlea indicating primitive osteophytic protuberances (synoviophytes). By day 15 after surgery, the synoviophytes had acquired a more solid consistency and were composed mostly of fibrocartilage covered by a fibro-cellular synovial lining (chondrophytes). By that time, this tissue was invaded with vascular channels; signs of ossification were already present in the deepest layer adjacent to bone. Between the 2nd and 12th weeks, this fibro-cartilaginous tissue, except for the surface fibrous or fibrocartilaginous layer, was progressively replaced by immature bone (osteophyte). Secondary bone remodeling started soon after the first lamellae of immature bone were deposited. Complete integration of the osteophyte into the distal femur occurred during the 2nd and 3rd month.

SO - J Orthop Res 1986;4(4):420-6

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12
UI - 88300313
AU - Front P ; Garcia F ; Guillermet V ; Darmon N ; Garcia G ; Mitrovic DR
TI - Metabolic and biochemical abnormalities of articular cartilage induced by implantation of a sterile sheet of polyethylene in the rabbit patellofemoral joint.
LA - Eng
MH - Animal ; Body Water/METABOLISM ; Carbohydrates/METABOLISM ; Cartilage, Articular/CYTOLOGY/*METABOLISM ; Cell Count ; Femur/CYTOLOGY/METABOLISM ; Hexosamines/METABOLISM ; Hydroxyproline/METABOLISM ; *Implants, Artificial ; Knee Joint/*SURGERY ; Male ; Models, Biological ; Polyethylenes ; Rabbits ; Uronic Acids/METABOLISM
RN - 0 (Hexosamines) ; 0 (Polyethylenes) ; 0 (Uronic Acids) ; 51-35-4 (Hydroxyproline)
PT - JOURNAL ARTICLE
AB - A polyethylene sheet was implanted in the patellofemoral joint of the right knee of the rabbit and the biochemical and metabolic changes in the articular cartilage from femoral trochleas (in contact with the implant) and femoral condyles (free of direct contact) were compared with those in their sham-operated counterparts 7, 15, and 30 days after joint implantation. The results showed that there was an increase in the water content; the extraction yields of uronic acid--, 35SO4-, and [3H]glycine-containing compounds; and the incorporation of [3H]thymidine, [3H]glycine, and 35SO4. Concomitantly, the contents of uronic acid--, hexosamine-, neutral sugars-, and hydroxyproline-containing substances decreased in the femoral trochlear cartilage and, to a much lesser extent, in the femoral condylar cartilage from implanted joints. The increased capacity of viable chondrocytes to incorporate metabolic radiolabeled precursors into newly synthesized macromolecules may represent a reparative cell response to the tissue injury induced by the implant. This is therefore a useful model for studying the response of chondrocytes to mechanical injury and tissue tolerance to intraarticularly implanted prosthetic materials.
SO - J Orthop Res 1988;6(5):657-65
CONTINUE PRINTING? (YES/NO)

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y
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13
UI - 87026166
AU - Glowacki J
TI - Cartilage and bone repair: experimental and clinical studies.
LA - Eng
MH - Animal ; Bone and Bones/TRANSPLANTATION ; *Bone Regeneration ; Bone Transplantation ; Cartilage, Articular/*PHYSIOLOGY/TRANSPLANTATION ; Fractures/PHYSIOPATHOLOGY ; Human ; Implants, Artificial ; Osteogenesis ; *Regeneration
PT - JOURNAL ARTICLE
SO - Arthroscopy 1986;2(3):169-73

19
UI - 86245980
AU - Wedge JH ; Powell JN ; Ulmer BG ; Reynolds R
TI - Biodegradable resurfacing of the hip in dogs.
LA - Eng
MH - Animal ; Biodegradation ; Cartilage, Articular/DRUG EFFECTS/
PHYSIOLOGY/SURGERY ; Comparative Study ; Dogs ; Drug Screening ;
Hip Joint/PATHOLOGY/*SURGERY ; Implants, Artificial ; Polyesters/
*THERAPEUTIC USE ; Powders ; Regeneration/DRUG EFFECTS ; Time
Factors
RN - 0 (Polyesters) ; 0 (Powders) ; 26969-66-4 (poly(lactide))
PT - JOURNAL ARTICLE
AB - Arthroplasties of the hips in dogs using a biodegradable
poly-L-lactide cup to protect the regenerating cartilage
following removal of normal articular cartilage and the drilling
of multiple full thickness defects into subchondral bone were
performed to determine whether or not the repair response could
be improved. The poly-L-lactide cup degraded in approximately 60
days. The regenerating cartilage was much better in the
experimental than the control dogs initially, but ultimately
failed, perhaps due to inadequate duration of protection of the
immature cartilage by the arthroplasty material.
SO - Clin Orthop 1986 Jul;(208):76-80
CONTINUE PRINTING? (YES/NO)

USER:
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20
UI - 86238086
AU - Pavlansky R ; Slavik M ; Jirko P ; Stol M
TI - [An attempt to replace joint cartilage using synthetic hydrogel]
LA - Cze
MH - Animal ; Cartilage, Articular/*SURGERY ; Dogs ; English Abstract
; Femur Head/SURGERY ; *Implants, Artificial ; Polyethylene
Glycols/*ADMINISTRATION & DOSAGE ; Polyhydroxyethyl Methacrylate/
*ADMINISTRATION & DOSAGE ; Polymethacrylic Acids/*ADMINISTRATION
& DOSAGE ; *Wound Healing
RN - 0 (Polyethylene Glycols) ; 0 (Polymethacrylic Acids) ; 25249-16-5
(Polyhydroxyethyl Methacrylate) ; 25852-47-5 (Hydrogel)
PT - JOURNAL ARTICLE
SO - Acta Chir Orthop Traumatol Cech 1986 Apr;53(2):94-102

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2
UI - 84054615
AU - Benichoux R ; Lascombes P ; Boman F ; de Visser AC
TI - [Experiment with autocartilage artificially induced by a porous implant]
LA - Fre
MH - Animal ; Cartilage, Articular/*DRUG EFFECTS/PATHOLOGY ; Comparative Study ; Drug Screening ; Drug Tolerance ; English Abstract ; *Implants, Artificial ; Male ; Microscopy, Electron, Scanning ; Polymers/*PHARMACOLOGY ; Rabbits ; Time Factors
RN - 0 (co(polyether-imide)) ; 0 (Polymers)
PT - JOURNAL ARTICLE
SO - Bull Acad Natl Med 1983 May;167(5):433-43

3
UI - 84003032
AU - Toyonaga T ; Uezaki N ; Chikama H
TI - Substitute meniscus of Teflon-net for the knee joint of dogs.
LA - Eng
MH - Animal ; Cartilage, Articular/PATHOLOGY ; Dogs ; Femur/PATHOLOGY ; *Implants, Artificial ; Knee Joint/RADIOGRAPHY/*SURGERY ; Menisci, Tibial/PATHOLOGY/*SURGERY ; Polytetrafluoroethylene
RN - 9002-84-0 (Polytetrafluoroethylene)
PT - JOURNAL ARTICLE
AB - Investigations conducted in 20 joints of 17 dogs suggest that a Teflon-net substitute meniscus preserves knee joint functions more effectively than a regenerated or absent meniscus. Teflon-net is an ideal material for meniscal replacement because it is easily obtainable, has flexibility and histo-compatibility, and is rapidly infiltrated with cells. A comparative study should be undertaken of knee joint functions with the substitute meniscus and the remains of the meniscus after partial meniscectomy before clinical use of the Teflon-net is feasible. The adhesion between the substitute meniscus and the popliteal muscle also requires further laboratory investigation.
SO - Clin Orthop 1983 Oct;(179):291-7
CONTINUE PRINTING? (YES/NO)

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y
PROG:

6
UI - 81199852
AU - Kon M ; de Visser AC
TI - A poly(HEMA) sponge for restoration of articular cartilage defects.
LA - Eng
MH - Animal ; *Biocompatible Materials ; Cartilage Diseases/SURGERY ; Cartilage, Articular/*SURGERY ; *Implants, Artificial ; Knee Joint/SURGERY ; Polyhydroxyethyl Methacrylate/*THERAPEUTIC USE ;

Polymethacrylic Acids/*THERAPEUTIC USE ; Rabbits
RN - 0 (Biocompatible Materials) ; 0 (Polymethacrylic Acids) ; 25249-16-5 (Polyhydroxyethyl Methacrylate)
PT - JOURNAL ARTICLE
AB - The properties of poly(HEMA) sponges have been studied after implantation in the weight-bearing articular surfaces of young and adult rabbit knees. Only sponges with small pores (less than 50 micrometer) were able to withstand weight-bearing. After 12 weeks, the implants were overgrown by cartilaginous or fibrocartilaginous tissue, and the ingrowth of chondroid tissue into the sponges was observed.
SO - Plast Reconstr Surg 1981 Mar;67(3):288-94

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File 350:Derwent World Pat. 1963-1980/UD=9551
         (c) 1996 Derwent Info Ltd
File 351:DERWENT WPI 1981-1995/UD=9601;UA=9548;UM=9540
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         (c) 1996 European Patent Office
File 347:JAPIO OCT 1976-1995/AUG.
         (c) JPO & JAPIO
File 348:EUROPEAN PATENTS 1978-1995/DEC W4
         (c) 1996 European Patent Office
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Set     Items   Description
S1     187238   JOINT? ?
S2    2194193   ARTICULA? OR SURFACE?
S3      14610   S1(6N)S2
S4       3117   BIORESOR? OR BIOCOMPAT? OR BIOIMPLANT?
S5         13   S3 AND S4
S6       1753   FIBROBLAST? OR FIBROCART?
S7          3   S3 AND S6
S8        901   RESORB?
S9          7   S3 AND S8
S10        21   S5 OR S7 OR S9
?
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>>>No matching display code(s) found in file(s): 344, 348

 10/5,DE/1     (Item 1 from file: 350)
DIALOG(R)File 350:Derwent World Pat.
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002528522  WPI Acc No: 80-46550C/27
XRAM Acc No: C80-C46550
    Cement free implantable prosthesis - with parts embedded in bone made
    of fibre reinforced plastics with outer surfaces of embedded glass
    ceramic particles
Index Terms: CEMENT FREE IMPLANT PROSTHESIS PART EMBED BONE MADE FIBRE
    REINFORCED PLASTICS OUTER SURFACE EMBED GLASS CERAMIC PARTICLE
Patent Assignee: (OSTE-) OSTEO AG
Author (Inventor): MITTELMEIE H; MOSER H; LEU B
Number of Patents: 002
Patent Family:
    CC Number    Kind     Date      Week
    EP 12146       A     800625     8027   (Basic)
    IT 1125838     B     860514     8737
Priority Data (CC No Date): EP 78810025 (781123)
Language: German
EP and/or WO Cited Patents: FR 2339388; FR 2104009; FR 2361093; FR 2327758;
    FR 2350824; DE 2654100; DE 2628284; DE 2451275
Designated States
 (Regional): BE; CH; DE; FR; GB; NL; SE
Abstract (Basic): Cement free implantable prostheses with bearing ribs has
    those parts to be anchored in bone made from a fibre reinforced
    plastics, e.g. polyethylene material which is chemically and
    mechanically stable in the body, while the outer surfaces in contact
    with the bone are provided with particulate material to anchor it into
    the bone which increase the bearing surface.  The reinforcing fibres
    are carbon fibres in the form of short fibres, fibre bundles, nets or
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plaits. The particles are of non- resorbable material such as bioactive glass ceramic or natural bone material apatite and/or dealbuminised and degreased bone material embedded in a silicate matrix.

The joint produced is cement free and the ratio of the stiffness and the surface elasticity of the joints corresponds to that of the region of the implant. Improved mechanical anchoring is achieved

File Segment: CPI
Derwent Class: A96; D22; L01; P32;
Int Pat Class: A61F-001/00; A61F-000/00
Manual Codes (CPI/A-N): A08-R03; A12-S08D; A12-V02; L01-K03; L02-J02; D09-C01
Plasdoc Key Serials: 0011; 0231; 0239; 2212; 2213; 2482; 2491; 2499; 2604; 2606; 2607; 2628; 2629; 2659; 2675; 2765; 2307
Polymer Fragment Codes (AM):
101 011 04- 041 046 047 23& 303 308 309 43& 46& 466 472 525 541 542 544 545 551 560 566 567 597 600 62- 645 688 723

10/5,DE/2 (Item 1 from file: 351)
DIALOG(R)File 351:DERWENT WPI

010328956 WPI Acc No: 95-230799/30
XRPX Acc No: N95-180037
Artificial finger joint - has elongated protrusion projecting from recessed surface of second member for insertion into groove in first member
Index Terms: ARTIFICIAL FINGER JOINT ELONGATE PROTRUDE PROJECT RECESS SURFACE SECOND MEMBER INSERT GROOVE FIRST MEMBER
Patent Assignee: (BATC/) BATCHELDER C F; (SARK/) SARKISIAN J S
Author (Inventor): BATCHELDER C F; SARKISIAN J S
Number of Patents: 001
Number of Countries: 001
Patent Family:

CC Number	Kind	Date	Week	
US 5425777	A	950620	9530	(Basic)

Priority Data (CC No Date): US 995773 (921223); US 218708 (940325)
Abstract (Basic): US 5425777 A
The metallic implantable finger joint has a biocompatible protective coating and includes both a base member and a protraction member. The base member is formed with a recess and has a protrusion projecting from inside the recess. The protraction member has a hemispherical surface which is slidingly engageable with the recess of the base member. Additionally, the protraction member is formed with a groove which engagingly receives the protrusion from the base member.

This engagement is such that when the base member is juxtaposed with the protraction member, the interaction between the protrusion and the groove allows for relative movement between the members in flexion-extension, lateral rotation and pure rotation. The finger joint can also include implant barbs which are selectively engageable with the base member and the protraction member.

Dwg.1a/7
Derwent Class: P32;
Int Pat Class: A61F-002/42

10/5,DE/3 (Item 2 from file: 351)
DIALOG(R)File 351:DERWENT WPI

009974849 WPI Acc No: 94-242562/30
XRPX Acc No: N94-191383
Artificial ligament for prosthetic use - comprises fixed inner section and outer sleeve which can slide relative to one another, made from synthetic or natural fibres
Index Terms: ARTIFICIAL LIGAMENT PROSTHESIS COMPRISE FIX INNER SECTION OUTER SLEEVE CAN SLIDE RELATIVE ONE MADE SYNTHETIC NATURAL FIBRE
Patent Assignee: (CUIS/) CUISSET B J G
Author (Inventor): CUISSET B J G
Number of Patents: 001
Number of Countries: 001
Patent Family:

CC	Number	Kind	Date	Week	
FR	2700111	A1	940708	9430	(Basic)

Priority Data (CC No Date): FR 923464 (920323)
Abstract (Basic): FR 2700111 A
The artificial ligament consists of a fixed section and a moving sleeve which form two separate ligaments (1, 2) of the same or different lengths, joined together so that they can slide relative to one another with a slip coefficient of between 10 and 40 per cent.
The two ligaments can be made from plaited, woven or knitted fibres of the same or different materials, with their ends joined together by a thermo-shrink material or a supple adhesive. The outer ligament can be made with sections of reduced resistance which allow its length to be varied. The ligaments can be made from Dacron (RTM) or other synthetic fibres, or from natural cellulose fibres which are treated to make them biocompatible .
ADVANTAGE - Wide range of uses, eg. in articulated joints or in digestive or gynaecological surgery.
Dwg.1/2
Derwent Class: P32;
Int Pat Class: A61F-002/08

10/5,DE/4 (Item 3 from file: 351)
DIALOG(R)File 351:DERWENT WPI

009949754 WPI Acc No: 94-217467/26
XRAM Acc No: C94-098870
XRPX Acc No: N94-171822
Flexible implant for human joints - uses flexible, biocompatible material to achieve uniform distribution of stress during articulation of joint
Index Terms: FLEXIBLE IMPLANT HUMAN JOINT FLEXIBLE BIOCOMPATIBLE MATERIAL ACHIEVE UNIFORM DISTRIBUTE STRESS ARTICULATE JOINT
Patent Assignee: (ITPO-) INT POLYMER ENG INC
Author (Inventor): SKIBA J B
Number of Patents: 003
Number of Countries: 024
Patent Family:

CC	Number	Kind	Date	Week	
WO	9413228	A1	940623	9426	(Basic)
AU	9458027	A	940704	9437	
EP	674495	A1	951004	9544	

Priority Data (CC No Date): US 990415 (921215)
Applications (CC,No,Date): WO 93US12215 (931215); EP 94903657 (931215); WO 93US12215 (931215); AU 9458027 (931215)
Language: English

EP and/or WO Cited Patents: US 4634445; US 4969909; US 5098779
Designated States
(National): AU; BR; CA; JP; KR; NZ; PL
(Regional): AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT ; SE
Filing Details: EP0674495 Based on WO 9413228; AU9458027 Based on WO 9413228
Abstract (Basic): WO 9413228 A

A joint implant (10) comprises an elongated solid cylinder (12) having an annular spacer (14) loosely fitting thereon, and located centrally along the axis of the cylinder (12). Proximal and distal ends of the cylinder (12) are implanted into the intramedullary canals (30) of adjacent bones (22,26), with the annular spacer (14) located therebetween to cushion the joint and maintain interdigit spacing. Both components (12,14) of the device are made from expanded polytetrafluoroethylene, a highly biocompatible substance, and flexible and compressible, enabling the joint to be articulated freely.

USE/ADVANTAGE - For replacing damaged joints in human patients, in particular joints of the hands or feet. A joint implant giving flexibility during articulation of the joint, will not become loose from its anchor points, and may be developed for use in larger bones.

Dwg.2/2

File Segment: CPI
Derwent Class: A96; D22; P32;
Int Pat Class: A61F-002/42
Manual Codes (CPI/A-N): A04-E08; A12-S04A3; A12-V02; D09-C01D
Plasdoc Key Serials: 0207 0210 0231 0947 0968 2536 2537 2628 2675 2765 3258
Polymer Fragment Codes (AM):
001 017 04- 062 064 087 090 43& 49- 491 50& 525 551 560 566 62- 645 651 688

PLASDOC Coding:
<01>
001 017; R00975 G0022 D01 D12 D10 D51 D53 D59 D69 D82 F- 7A; H0000; S9999 S1309-R; P0511
002 017; ND01; B9999 B4035 B3930 B3838 B3747; B9999 B4488 B4466; Q9999 Q8048 Q7987; K9416

10/5,DE/5 (Item 4 from file: 351)
DIALOG(R)File 351:DERWENT WPI

009726858 WPI Acc No: 94-006708/01
XRAM Acc No: C94-002628
Compsn. for treatment of bone lesions - comprises inorganic phase of tricalcium phosphate and/or hydroxy-apatite and organic phase of hydrated collagen and hydrated collagen demineralised bone prod.
Index Terms: COMPOSITION TREAT BONE LESION COMPRISE INORGANIC PHASE TRI CALCIUM PHOSPHATE HYDROXY APATITE ORGANIC PHASE HYDRATED COLLAGEN HYDRATED COLLAGEN DEMINERALISE BONE PRODUCT
Patent Assignee: (LEMO/) LEMONS J E
Author (Inventor): LEMONS J E
Number of Patents: 001
Number of Countries: 001
Patent Family:

CC	Number	Kind	Date	Week	
US	5273964	A	931228	9401	(Basic)

Priority Data (CC No Date): US 713768 (850320); US 946432 (861223); US 280949 (881207)
Abstract (Basic): US 5273964 A

A compsn. for the treatment of bone lesions or deficiencies in live mammals comprises an inorganic phase and an organic phase. The inorganic phase comprises (i) porous particulate tricalcium phosphate ceramic, and (ii) nonporous and/or microporous particulate hydroxyapatite ceramic, or a mixture of (i) and (ii). The organic phase comprises (iii) purified hydrated collagen product which is placed with and forms a (substantially) continuous surface coating over the inorganic phase and (iv) hydrated collagen-demineralised bone product which is placed with and forms a (substantially) continuous surface coating over the surface coating comprising (iii),or the coating comprising (iv) may be over the inorganic phase and that comprising (iii) on top of this.

USE - The compsn. may be adminstered at surgical reconstruction or delivered to the lesion site by syringe. The organic phase provides osteogenic, osteoinductive and osteoconductive properties and the inorganic provides a three-dimensional porous structure into which the subsequent formation of bone occurs. Examples of what may be treated include cystic bone cavities where the cyst has been removed surgically, traumatic injury, resorbed alvolar ridges or a depressed molar eminence due to mal-union of a fracture, augmentation of the chin or long bone, non-unions of long bones, seucreatrophy of the mandibular or maxillary bone or sites associated with joints, and loss at the inferior border of the mandible or compact bone surfaces adjacent to joint spaces. Dwg.0/0

File Segment: CPI
Derwent Class: B06; B04;
Int Pat Class: A61K-033/42; A61K-037/02
Manual Codes (CPI/A-N): B04-D02; B04-N02; B05-A01B; B05-B02A3; B14-N01
Chemical Fragment Codes (M1):
03 M423 M431 M782 M903 M904 P714 P942 R032 V752 R24034-M
04 M423 M431 M782 M903 P714 P942 R032 V600 V642
Chemical Fragment Codes (M2):
01 A220 A940 B115 B701 B713 B720 B815 B831 C108 C802 C803 C804 C805 C807 M411 M431 M782 M903 M904 M910 P714 P942 R032 R01757-M
02 A220 A940 B115 B701 B713 B720 B815 B831 C101 C108 C802 C804 C805 C807 M411 M431 M782 M903 M904 P714 P942 R032 R03521-M
Chemical Fragment Codes (M6):
05 M903 P714 P942 R032 R111 R120 R220 R231 R307
Derwent Registry Numbers: 1757-U

10/5,DE/6 (Item 5 from file: 351)
DIALOG(R)File 351:DERWENT WPI

009535437 WPI Acc No: 93-228977/29
XRAM Acc No: C93-101880
XRPX Acc No: N93-175753

Cotyloid implant esp. for hip joint prosthesis - comprises cup with concave-surfaced holes to receive fixing screws with matching heads to engage with sound sections of bone

Index Terms: COTYLOID IMPLANT HIP JOINT PROSTHESIS COMPRISE CUP CONCAVE SURFACE HOLE RECEIVE FIX SCREW MATCH HEAD ENGAGE SOUND SECTION BONE
Patent Assignee: (LEPI-) GRP LEPINE SA
Author (Inventor): BREMANT J; CAILLE J; CALTRAN M
Number of Patents: 001
Number of Countries: 001

Patent Family:

CC Number	Kind	Date	Week	
FR 2682588	A1	930423	9329	(Basic)

Priority Data (CC No Date): FR 9113289 (911022)

Abstract (Basic): FR 2682588 A

Cup shape has implant holes for fixing screws (10) and screws spaced evenly over at least half the surface of the cup. Sides of the screw heads (10a) contacting the cup are convex while the corresp. surfaces of the holes are concave and have the same radius curvature, so screws pivot in all directions relative to the holes. Holes in the cup can be set in two circles parallel to the cup, edge and at approx. 1/3-2/3 of its height. Holes can all be made in one half of the cup, while the other has a slot in an arc from the summit of the cup to its edge, with smaller slots on either side of the main one.

Cup is made from a biocompatible material such as Ca hydroxyapatite.

ADVANTAGE - Improved anchoring into healthy parts of bone.

Dwg.0/3

File Segment: CPI

Derwent Class: A96; D22; P32;

Int Pat Class: A61F-002/34

Manual Codes (CPI/A-N): A12-V02; D09-C01D

Plasdoc Key Serials: 0231 0239 2765 3258

Polymer Fragment Codes (AM):

001 014 04- 041 046 047 43& 50& 645 651 688

10/5,DE/7 (Item 6 from file: 351)

DIALOG(R)File 351:DERWENT WPI

009520221 WPI Acc No: 93-213763/26

Related WPI Accession(s): 89-053954; 90-290130; 91-353480; 93-368347

XRAM Acc No: C93-094768

XRPX Acc No: N93-164411

Prosthetic articular cartilage for insertion into human joint - which can be implanted by normal operative techniques and permits normal joint motion to take place being able to withstand the forces involved; BIOCOMPATIBLE BIO RESORBABLE FIBRES

Index Terms: PROSTHESIS ARTICULAR CARTILAGE INSERT HUMAN JOINT CAN IMPLANT NORMAL OPERATE TECHNIQUE PERMIT NORMAL JOINT MOTION PLACE ABLE WITHSTAND FORCE

Patent Assignee: (REGE-) REGEN BIOLOGICS INC; (REGE-) REGEN CORP

Author (Inventor): LI S; STONE K R

Number of Patents: 006

Number of Countries: 021

Patent Family:

CC Number	Kind	Date	Week	
WO 9311723	A1	930624	9326	(Basic)
AU 9332291	A	930719	9344	
US 5306311	A	940426	9416	
EP 617598	A1	941005	9438	
JP 7505792	W	950629	9534	
EP 617598	A4	950111	9545	

Priority Data (CC No Date): US 809003 (911217); US 75352 (870720); US 317951 (890302); US 520027 (900519)

Applications (CC,No,Date): EP 93900720 ( ); WO 92US10290 (921130); AU 9332291 (921130); WO 92US10290 (921130); EP 93900720 (921130); WO 92US10290 (921130); JP 93510420 (921130)

Language: English

EP and/or WO Cited Patents: EP 277678; US 5108438; EP 349173 A; FR 2642301 Y; WO 9012603 A; WO 9116867 X
Designated States
(National): AU; CA; JP
(Regional): AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE ; LI
Filing Details: AU9332291 Based on WO 9311723; US5306311 CIP of US 4880429; US5306311 CIP of US 5007934; EP0617598 Based on WO 9311723; JP07505792 Based on WO 9311723
Abstract (Basic): WO 9311723 A

The cartilage (10) is a dry, porous matrix of biocompatible and bioresorbable fibres (12). These fibres include either a natural polymer or analogs thereof, which may be wholly or partly crosslinked. The base component (20) includes a series of concentric ridges (14) of diminishing dia. to produce a cone shaped structure, which is then implanted into the bone by impaction, retaining the device in place until tissue ingrowth can take over. This leaves the softer matrix (12) flush with the surface of the surrounding articular cartilage.

USE/ADVANTAGE - May be implanted in any human joint to replace or assist regeneration of articular cartilagenous tissue. Can be implanted by standard operative techniques, and permits normal joint motion to take place, being capable of withstanding the forces involved.

Dwg.4a/10

Abstract (US): 9416 US 5306311 A

Prosthetic articular cartilage device comprises a dry porous vol. matrix of biocompatible and at least partially bioresorbable fibres.

Fibres comprise natural polymers and/or their analogues. Matrix is adapted to have an in vivo outer surface contour the same as natural articular cartilage. Matrix has pore size 100-400 microns.

USE - Matrix establishes a bioresorbable scaffold adapted for ingrowth of articular chondrocytes and for supporting natural articulating joint forces. Dwg.0/6

File Segment: CPI
Derwent Class: A96; D22; P32;
Int Pat Class: A61F-002/28; A61F-002/32; A61F-002/38; A61L-027/00
Manual Codes (CPI/A-N): A09-A; A12-V02; D09-C01
Plasdoc Key Serials: 0013 0218 0224 0231 1279 1588 1982 1986 1989 2002 2008 2014 2020 2198 2295 2300 2382 2393 2394 2400 2462 2493 2524 2545 2606 2629 2653 2672 2765 3248 3258
Polymer Fragment Codes (AM):
001 014 028 04- 040 147 157 198 231 240 244 252 253 256 259 273 31- 336 341 359 402 405 414 417 420 43& 44& 456 458 473 476 48- 481 50& 525 532 533 534 541 544 551 567 575 595 645 651 688 720 722
Chemical Fragment Codes (M0):
99
Derwent Registry Numbers: 0001-U; 0823-U; 1455-U

10/5,DE/8 (Item 7 from file: 351)
DIALOG(R)File 351:DERWENT WPI

009490983 WPI Acc No: 93-184518/23
XRPX Acc No: N93-141800

Articulating component for knee joint replacement prosthesis - comprises femoral or tibial plate, secured to relevant bone by intramedullary shaft screw-locked to internal slideway of plate

Index Terms: ARTICULATE COMPONENT KNEE JOINT REPLACE PROSTHESIS COMPRISE FEMORAL TIBIA PLATE SECURE RELEVANT BONE INTRAMEDULLARY SHAFT SCREW LOCK INTERNAL SLIDEWAY PLATE
Patent Assignee: (TORN-) ETAB TORNIER
Author (Inventor): OUDARD J
Number of Patents: 003
Number of Countries: 018
Patent Family:

CC	Number	Kind	Date	Week	
EP	545833	A1	930609	9323	(Basic)
FR	2684290	A1	930604	9335	
US	5326359	A	940705	9426	

Priority Data (CC No Date): FR 9115044 (911129)
Applications (CC,No,Date): US 981061 (921124); EP 92420439 (921126)
Language: French
EP and/or WO Cited Patents: EP 376658; EP 69683; US 4822366; US 4985037
Designated States (Regional): AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

Abstract (Basic): EP 545833 A

The prosthesis includes an articulating component (1) which may be a femoral or tibial member, secured to the respective bone by an intramedullary shaft. The component has a slideway surface (15) which engages the base (20) of a pin (2) whose axis is slightly inclined relative to the base bottom surface.

The intramedullary shaft (3) includes an attachment formation such as a screw thread (30) for secure locking engagement with the pin. The slideway of the articulating component comprises a groove of dovetail cross-section, with a number of depressions formed in its surface for locking engagement by the end of the shaft.

ADVANTAGE - Rapid, secure assembly of modular components to suit dimensions of particular patient.

Dwg.1/3

Abstract (US): 9426 US 5326359 A

A biocompatible plate has a slideway having a bottom wall, with a groove extending along said slideway, spaced impressions in the bottom wall, and a bushing having a base. The base is slidably receivable in the slideway so as to be engageable within said groove.

A bore extends through the bushing and has a tapped portion, with a centro-medullary stem having an end and a threaded portion, and threaded portion securable to the tapped portion of the bushing, so as to retain the end of the centro-medullary stem in one of the impressions to secure the centro-medullary stem relative to the plate.

ADVANTAGE - Enables all the desired dimensions of implants to be obtained economically.

Dwg.1/3

Derwent Class: P32;
Int Pat Class: A61F-002/38; A61N-001/30

10/5,DE/9 (Item 8 from file: 351)
DIALOG(R)File 351:DERWENT WPI

008864991 WPI Acc No: 91-369016/50
XRAM Acc No: C91-159033
XRPX Acc No: N91-282510
Injectable glass compsns. - for tissue reconstruction, etc., comprising particles of bioactive glass suspended in hyaluronic acid soln.
Index Terms: INJECTION GLASS COMPOSITION; TISSUE RECONSTRUCT COMPRISE

PARTICLE BIOACTIVE GLASS SUSPENSION HYALURONIC ACID SOLUTION
Patent Assignee: (UYFL-) UNIV FLORIDA
Author (Inventor): WALKER D R; HENCH J W; RAMER M; HENCH L L
Number of Patents: 002
Number of Countries: 015
Patent Family:

CC	Number	Kind	Date	Week	
WO	9117777	A	911128	9150	(Basic)
WO	9117777	A3	920109	9509	

Priority Data (CC No Date): US 526638 (900522)
Applications (CC,No,Date): WO 91US3596 (910522)
Language: English
EP and/or WO Cited Patents: NoSR.Pub; EP 251695 A; EP 291177 A
Designated States
(National): CA; JP
(Regional): AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LU; NL; SE
Abstract (Basic): WO 9117777

Injectable fluid compsns. comprise particles of a bacteriostatic, bioactive and biocompatible glass suspended homogeneously in an aq. soln. of hyaluronic acid or a hyaluronic acid salt or deriv. having an average mol.wt. of at least 1 MD.

The compsn. of the glass falls within a specified region in a ternary diagram of SiO2, CaO (or MgO) and Na2O (or K2O) contents.

USE - The compsns. are esp. useful for the repair, replacement, reconfiguration, reconstruction or augmentation of bone and/or soft tissue structures, esp. periurethral, periureteral, maxillofacial or mandibular tissue, tooth root canals or pulp caps, vocal cords, defective bones, vertebral spaces, articulating joints or subcutaneous or intradermal soft tissue. @(28pp Dwg.No.0/4)@

File Segment: CPI
Derwent Class: D22; L01; P34;
Int Pat Class: A61L-025/00; A61L-027/00; A61L-031/72
Manual Codes (CPI/A-N): D08-A03; D09-C01D; L01-A; L01-F; L01-L

10/5,DE/10 (Item 9 from file: 351)
DIALOG(R)File 351:DERWENT WPI

008636207 WPI Acc No: 91-140237/19
Related WPI Accession(s): 90-059029
XRAM Acc No: C91-060420
Microspheres for radiation synovectomy of arthritic joints - based on biocompatible or biodegradable glass contg. metal convertible to beta emitter by neutron irradiation
Index Terms: MICROSPHERE RADIATE SYNOVECTOMY ARTHRITIS JOINT; BASED BIOCOMPATIBLE BIODEGRADABLE GLASS CONTAIN METAL CONVERT BETA EMITTER NEUTRON IRRADIATE
Patent Assignee: (UMOR) UNIV OF MISSOURI
Author (Inventor): DAY D E; EHRHARDT G J
Number of Patents: 001
Patent Family:

CC	Number	Kind	Date	Week	
US	5011797	A	910430	9119	(Basic)

Priority Data (CC No Date): US 408115 (890915); US 150154 (880129)
Filing Details: US5011797 Div ex 4889707 (367KB)
Abstract (Basic): US 5011797

Microspheres for radiation synovectomy of arthritic joints in mammals comprise a non-radioactive metal isotope dissolved in and uniformly dispersed throughout a glass material (I) such that when

exposed to neutron radiation, the isotope will produce a beta-emitting radioisotope.

(I) is (a) a biocompatible material selected from Mg aluminosilicate and aluminosilicate (sic), or (b) a biodegradable material selected from Li or K silicate, aluminosilicate, aluminoborate, germanate and aluminogermanate.

In case (a), the metal is Sm, Ho, Er, Dy or Re, and the radioisotope is Sm-153, Ho-166, Et-169, Dy-165, Ee-186 or Re-188. In case (b), the metal is Sm, Ho, Er, Dy, Re or Y, and the radioisotope is Sm-153, Ho-166, Er-169, Dy-165, Ee-186, Re-188 or Y-90.

ADVANTAGE - The radioisotopes have half-lives and radiation ranges suitable for irradiation of synovial membranes without greatly affecting more distant joint structures. The microspheres have smooth surfaces , which should minimise tissue irritation. @(10pp Dwg.No.0/2)@

File Segment: CPI
Derwent Class: B07; K08; L01;
Int Pat Class: C03C-003/09; C03C-012/00
Manual Codes (CPI/A-N): B05-A01B; B05-A02; B05-A03B; B05-A04; B05-B02C; B12-D03; B12-M11E; K09-B; K09-E; L01-L
Chemical Fragment Codes (M2):
01 A539 A675 A762 A766 A767 A768 A940 C108 C550 C730 C801 C802 C803 C804 C805 C807 C812 M411 M431 M782 M903 M904 P421 Q444 Q452 R033 9119-24501-M 9119-24502-M
02 A212 A940 C108 C550 C730 C801 C802 C803 C804 C805 C807 M411 M431 M782 M903 M904 M910 P421 Q444 Q452 R033 R01510-M
03 A313 A940 C108 C550 C730 C801 C802 C803 C804 C805 C807 M411 M431 M782 M903 M904 M910 P421 Q444 Q452 R033 R01544-M
04 B114 B702 B720 B831 C108 C800 C802 C803 C804 C805 C807 M411 M431 M782 M903 M904 M910 P421 Q444 Q452 R033 R01694-M
05 A103 A940 C108 C550 C730 C801 C802 C803 C804 C805 C807 M411 M431 M782 M903 M904 M910 P421 Q444 Q452 R033 R01941-M
06 B105 B702 B712 B720 B803 B832 C108 C800 C802 C803 C804 C805 C807 M411 M431 M782 M903 M904 M910 P421 Q444 Q452 R033 R01498-M
07 A119 A940 C108 C550 C730 C801 C802 C803 C804 C805 C807 M411 M431 M782 M903 M904 P421 Q444 Q452 R033 R03988-M
08 A332 A940 C108 C550 C730 C801 C802 C803 C804 C805 C807 M411 M431 M782 M903 M904 M910 P421 Q444 Q452 R033 R01511-M
Chemical Fragment Codes (M6):
09 M903 P421 Q444 Q452 R033 R111 R536
Derwent Registry Numbers: 1498-U; 1510-U; 1511-U; 1544-U; 1694-U; 1941-U

10/5,DE/11 (Item 10 from file: 351)
DIALOG(R)File 351:DERWENT WPI

008592141 WPI Acc No: 91-096173/14
XRAM Acc No: C91-041123
XRPX Acc No: N91-074345
Fingers joint prosthesis - with two pins of specified sintered material sepd. by layer of specified polymer
Index Terms: FINGER JOINT PROSTHESIS; TWO PIN SPECIFIED SINTER MATERIAL SEPARATE LAYER SPECIFIED POLYMER
Patent Assignee: (SULZ) GEBRUDER SULZER AG; (PROT-) PROTEK AG
Author (Inventor): FREY O; MEULI H C; MEULI H
Number of Patents: 004
Number of Countries: 008
Patent Family:
CC Number Kind Date Week

EP 420794	A	910403	9114	(Basic)
US 5092896	A	920303	9212	
EP 420794	B1	931020	9342	
DE 59003145	G	931125	9348	

Priority Data (CC No Date): CH 893525 (890928)
Applications (CC,No,Date): DE 503145 (900821); EP 90810630 (900821); EP 90810630 (900821); US 587246 (900924); EP 90810630 (900821)
Language: German
EP and/or WO Cited Patents: EP 176711; FR 2605878; US 4231121; US 4685919
Designated States (Regional): AT; CH; DE; FR; GB; IT; LI
Filing Details: DE59003145 Based on EP 420794
Abstract (Basic): EP 420794

A finger joint prosthesis consists of two halves which are anchored in each of the two bones (1,2) belonging to the joint. These halves are made of a sintered structure of hydroxyl apatite in the shape of tapering pins (3,4) which are separated from each other by an easy-slide layer (6) of PU or other compatible polymer which impedes the bone build-up. Undercuts (7) and grooves promote the ingrowth of bone tissue. Stability can be added by an elastic hose (8) of resorbible material such as gelatine of polyacrylate.

ADVANTAGE - This promotes the bone growth and re-establishes at least a part of the function of a finger joint. @(5pp Dwg.No.1

Abstract (US): 9212 US 5092896

Finger joint prosthesis comprises first and second pegs of sintered hydroxylapatite anchored in respective bones, an intermediate slide layer between the pegs, and an elastic base of resealable material surrounding the pegs. The hose is pref. of gelatin and polylactate and the slide layer is of polyurethane.

ADVANTAGE - Secure implantation and reliable articulated joint . @(4pp)@

Abstract (EP): 9342 EP 420794 B

A finger joint prosthesis consisting of two half-prostheses which slide against one another and are made in the form of tapering pegs (3,4) which may be anchored in the bones (1,2), characterised in that the half-prosetheses consist of a sintered structure of hydroxyl apatite and that the pegs (3,4) are separated from one another by an intermediate layer (6) which is capable of sliding and impedes the build-up of bone.

Dwg.1,2/2

File Segment: CPI
Derwent Class: A96; D21; P32;
Int Pat Class: A61F-002/42
Manual Codes (CPI/A-N): A12-V02; D09-C01D
Plasdoc Key Serials: 0231 1294 2658 2672 2765
Polymer Fragment Codes (AM):
101 014 04- 150 43& 525 597 599 645

10/5,DE/12 (Item 11 from file: 351)
DIALOG(R)File 351:DERWENT WPI

008423918 WPI Acc No: 90-310919/41
XRAM Acc No: C90-134680
XRPX Acc No: N90-238444

Diagnosing scoliosis in children - by inspecting skin on radio-carpal joint, and using absence of meta-chromatic coloured fibroblasts as positive indicator

Index Terms: DIAGNOSE SCOLIOSIS CHILD; INSPECT SKIN RADIO JOINT ABSENCE

META COLOUR FIBROBLAST POSITIVE INDICATE CHROMATIC
Patent Assignee: (NSTR=) NOVOS TRAUMA RES
Author (Inventor): KAZMIN A I; ZAIDMAN A M; SEMENOV I R
Number of Patents: 001
Patent Family:

CC	Number	Kind	Date	Week	
SU	1529070	A	891215	9041	(Basic)

Priority Data (CC No Date): SU 3907794 (850611)
Abstract (Basic): SU 1529070
Scoliosis in children is diagnosed more efficiently as follows: The skin on the outer surface of radiocarpal joint is inspected. If there are no metachromatically coloured fibroplasts in the skin, then scoliosis is diagnosed. Otherwise, other causes should be suspected, especially the congenital dislocation of hip.
ADVANTAGE - Possibility of early diagnosis. Bul.46/15.12.89 @(2pp
Dwg.No. 0/0
File Segment: CPI; EPI
Derwent Class: B04; S03; P31; R16;
Int Pat Class: A61B-010/00; G01N-001/28
Manual Codes (CPI/A-N): B11-C09; B12-K04A
Manual Codes (EPI/S-X): S03-E09E; S03-E14H9
Chemical Fragment Codes (M1):
01 M423 M750 M903 N102 V600 V642
Chemical Fragment Codes (M6):
02 M903 P831 R160 R515 R533 R639

10/5,DE/13 (Item 12 from file: 351)
DIALOG(R)File 351:DERWENT WPI

008306413 WPI Acc No: 90-193414/25
Related WPI Accession(s): 94-035006
XRAM Acc No: C90-083698
Covalent conjugate of collagen - with hydrophilic polymer and precursor compsn. contg. reactive polymer deriv., for repairing soft tissue and repairing bone defects
Index Terms: COVALENT CONJUGATE COLLAGEN HYDROPHILIC POLYMER PRECURSOR COMPOSITION CONTAIN REACT POLYMER DERIVATIVE REPAIR SOFT TISSUE REPAIR BONE DEFECT
Patent Assignee: (CLGE) COLLAGEN CORP
Author (Inventor): BENTZ H; BURNS R A; DELUSTRO F; FRIES L; MICHAELS A S; RHEE W; WALLACE D G
Number of Patents: 011
Number of Countries: 017
Patent Family:

CC	Number	Kind	Date	Week	
WO	9005755	A	900531	9025	(Basic)
CA	2003538	A	900521	9031	
AU	8946609	A	900612	9036	
EP	444157	A	910904	9136	
JP	4502027	W	920409	9221	
US	5162430	A	921110	9248	
AU	638687	B	930708	9334	
US	5264214	A	931123	9348	
US	5304595	A	940419	9415	
US	5306500	A	940426	9416	
US	5376375	A	941227	9506	

Priority Data (CC No Date): US 274071 (881121); US 433441 (891114)
Applications (CC,No,Date): EP 90901254 (891121); WO 89US5351 (891121); JP

90501327 (891121); AU 8946609 (891121); US 274071 (881121); US 433441 (891114); US 930142 (920814); US 274071 (881121); US 433441 (891114); US 930142 (920814); US 998802 (921230); US 274071 (881121); US 433441 (891114); US 930142 (920814); US 110577 (930823); US 274071 (881121); US 433441 (891114); US 930142 (920814); US 110577 (930823); US 177578 (940105)

Language: English

EP and/or WO Cited Patents: 8.Jnl.Ref; US 3619371; US 3788948; US 3876501; US 3949073; US 3960830; US 4002531; US 4055635; US 4088538; US 4192021; US 4261973; US 4314380; US 4357274; US 4412989; US 4414147; US 4415665; US 4424208; US 4488911; US 4495285; US 4496689; US 4557764; US 4563350; US 4582640; US 4642117; US 4678468; US 4689399; US 4732863; US 4745180; US 4766106; US 4847325; WO 8401106; WO 8704078

Designated States (National): AU; JP

(Regional): AT; BE; CH; DE; ES; FR; GB; IT; LU; NL; SE; LI

Filing Details: JP04502027 Based on WO 9005755; AU0638687 Previous Publ. AU 8946609; AU0638687 Based on WO 9005755; US5264214 Div ex US 5162430; US5304595 Div ex US 5162430; US5306500 Div ex US 5162430; US5306500 Div ex US 5264214; US5376375 Div ex US 5162430; US5376375 Div ex US 5264214; US5376375 Div ex US 5306500

Abstract (Basic): WO 9005755 A

Compsn. comprises collagen (I) chemically conjugated to a synthetic hydrophilic polymer (II).

Also new are compsn. contg. (I) plus a (II) having reactive gps. at each end of the molecule, able to form a covalent bond with Lys side chains in (I), formulated with an acceptable carrier for injection.

(I) is type I, II or III, esp. atelopeptide fibrillar, collagen and (II) is polyethylene glycol of mol. wt. 400-20000 or its monomethyl ether of mol. wt. 1900-8000. (II) is bound to (I) at one end only, and the other end may carry a growth factor (GF), or both ends are attached to (I), forming crosslinks. Usually 20-30% of available Lys in (I) are reacted, with collagen; polymer mole ratio 1:1-20.

USE/ADVANTAGE - These compsns. are used to replace or reinforce soft tissues or (when they also include a particulate material) for repairing bone defects. Crosslinked compsns. of density 0.5-1.5 g/cc can be used for cartilage replacement. They can also be used to coat implants (e.g. catheters or stress-bearing bone implants) to reduce their immunogenecity and tissue irritation, and to make membranes, tubes, wound dressing, etc. Compared with (I)-only products, these compsns. have better chemical stability and are easier to handle, and may also provide for slow release of GF. @(50pp Dwg.No.0/2)

Abstract (US): 9506 US 5376375 A

Augmentation of mammalian tissue comprises mixing an aq. soln. of a synthetic hydrophilic polymer having a rective gp. capable of covalent bonding in situ with an available Lys side chain in collagen with an aq. collagen mixt. of concn. 10-100 mg/ml to form reaction mixt. having 0.1-10% polymer, and admin. at site needing augementation befor substantial collagen polymer crosslinking occurs.

Pref. polymer is polyethylene glycol of MW. 400-20000 with N-hydroxysuccinimade ester reactive gps.. Pref. collagen is fibrillar atelopeptide collagen or nonfibrillar collagen.

USE - The collagen-polymer conjugates are used to treat bone defects. They are stable in vivo and nonimmunogenic. Dwg.0/2 9416 US 5306500 A

Tissues are augmented in mammals by administering at a site requiring augmenting a compsn. of (A) collagen chemically conjugated to a synthetic hydrophilic polymer, pref. monomethyl- polyethylene glycol of mol. wt. 5,000 and (B) sufficient liq., pharmaceutically acceptable carrier.

The polymer pref. crosslinks the collagen to form a conjugate. The compsn. is administered by injection. The compsn. contains a growth factor. It is opt. mixed with a suitable particulate material for admin. to non-bearing bones.

USE/ADVANTAGE - To augment a dermal defect or sphincter, the surface of a joint ; used to replace a portion of a tendon, ligament, vessel or membrane; to coat a solid implant used to augment bone tissues. The compsn. can be readily handled. It has a better chemical stability than known ones and better malleability and elasticity.

Dwg.1/2 9415 US 5304595 A

A pharmaceutically acceptable compsn. consists of (A) an effective amt. of pref. (non)fibrillated, atelo-peptide collagen crosslinked with (B) a hydrophilic, synthetic polymer, pref. a polyethylene glycol of mol. wt. 400-20,000, esp. 3,000-10,000. The compsn. has a density 0.5-1.5 g/cm3.

The compsn. is pref. obtd. (a) by adding a conc. soln. of the polymer to an aq. mixt. contg. 3-100mg collagen per ml to obtain a reaction mixt. contg. 5-40 wt.% polymer, (b) using a polymer having at each end a reactive gp. able to form a covalent bond with a lysine side chain on the collagen and (c) recovering the crosslinked collagen/polymer conjugate formed.

USE/ADVANTAGE - Used to replace or augment collagen. The compsn. has better handling characteristics and chemical stability than known ones.

Dwg.0/2 9348 US 5264214 A

A new compsn. to repair bone defects comprises collagen chemically conjugated to a synthetic hydrophobic polymer with particulate material and fluid carrier.

Pref. compsn. is reconstituted atelopeptide fibriller collagen conjugated to monomethyl-polyethylene glycol polymer of MW, 5000 esp. chemically conjugated to 10-50% of available Lys residues.

Particulate materials include 1-20 micron OHapatite, Ca3PO4, or mixt. EGF, transforming growth factor -alpha or -beta, or beta1 or beta2, platelet derived factor- -AA or -AB or -BB, acidic or basic fibroblast grwoth factor, insulin-, interleukin- and nerve-growth factors, etc. may be present.

USE/ADVANTAGE - Handling characteristics and persistance of implants of collagen for repair of bone or connective tissues are improved by conjugation or crosslinking with intra- rather than inter-fibre bonding and inclusion of solids to give firm materials. Also used as coatings for implants, catheters with low immunogenicity.

Dwg.0/2 9248 US 5162430 A

A pharmaceutically acceptable non-immunogenic compsn. comprises atelopeptide collagen (I) chemically conjugated to a synthetic hydrophilic polymer (II). (I) is polyethylene glycol having molecular wt. of 400-20,000 and its bound to an available lysine on (II). Pref. the (I) has a 1st end bound to lysine residue and a 2nd end free, with 10-50 (pref. 20-30) % of polymer mols. bound to lysine residue. (II) is atelopeptide (non)fibrillar collagen.

A compsn. having a collagen chemically conjugated to a synthetic hydrophilic polymer with its 1st end being bound to a collagen mol. and its 2nd end bound to a growth factor e.g. transforming growth factor alpha, platelet derived growth factor - A,B, colony stimulating factors, etc.) is also claimed.

USE/ADVANTAGE - The compsn. is suitable for augmentation of soft tissue. Dwg.0/2

File Segment: CPI
Derwent Class: A96; B04; D22; P32; P34; B07;
Int Pat Class: A61F-002/30; A61F-013/00; A61K-009/14; A61K-009/50;

A61K-037/02; A61K-037/12; A61K-037/36; A61L-027/00; A61L-029/00; C07K-015/08; C07K-017/08; C08G-063/48; C08G-063/91; C08G-081/00; C08G-083/00; C08H-001/06; C08J-003/00; C08L-071/02; C08L-089/04; C08L-089/06
Manual Codes (CPI/A-N): A03-C01; A10-E01; A12-V01; B04-B04A6; B04-C03B; B11-C07; B12-A07; D09-C01D; D09-C04B
Plasdoc Key Serials: 0009 0013 0210 0211 0231 0947 1279 1306 1588 1590 1592 1602 1604 1986 1990 1999 2002 2014 2020 2022 2177 2197 2198 2207 2299 2318 2382 2386 2393 2410 2422 2427 2439 2493 2507 2513 2534 2541 2560 3250 2585 2607 2628 2645 2651 2672 2675 2718 2728 2765 2766 2767 2768 3286
Polymer Fragment Codes (AM):
101 014 028 032 034 039 04- 05- 062 064 087 147 198 200 229 231 239 240 250 256 27& 31- 311 316 332 336 341 359 38- 393 398 399 402 405 408 409 414 42- 43& 431 432 435 437 47& 473 477 489 512 52& 525 532 533 535 541 545 55& 551 560 566 575 580 583 589 592 593 611 62- 643 645 674 688 720 724
Chemical Fragment Codes (M0):
99
Chemical Fragment Codes (M1):
01 F011 F012 F423 H211 H401 H402 H481 H482 H589 H713 H721 J521 L660 L699 L941 M210 M211 M212 M272 M273 M280 M281 M311 M312 M313 M320 M323 M332 M342 M383 M393 M423 M510 M520 M521 M530 M540 M620 M710 M903 P714 V752
Derwent Registry Numbers: 0811-U

10/5,DE/14 (Item 13 from file: 351)
DIALOG(R)File 351:DERWENT WPI

008136986 WPI Acc No: 90-023987/04
XRPX Acc No: N90-018384
Hip joint prosthesis - has spherical surface of acetabulum rim or ball end coated with resorbable layer
Index Terms: HIP JOINT PROSTHESIS SPHERE SURFACE ACETABULUM RIM BALL END COATING RESORPTION LAYER
Patent Assignee: (FRIE-) FRIEDRICHSFELD GMBH; (FRIE-) FRIEDRICHSFELD KERAMIK & KUNST
Author (Inventor): HUND W; MEISS L; VIZETHUM F
Number of Patents: 005
Number of Countries: 009
Patent Family:

CC	Number	Kind	Date	Week	
EP	351545	A	900124	9004	(Basic)
DE	3824243	C	900412	9015	
EP	351545	B	911218	9151	
DE	58900582	G	920130	9206	
ES	2028417	T3	920701	9231	

Priority Data (CC No Date): DE 3824243 (880716)
Applications (CC,No,Date): EP 89110735 (890614); EP 89110735 (890614)
Language: German
EP and/or WO Cited Patents: DE 2334643; DE 3200340; FR 1416534; US 3818514; WO 8601394
Designated States (Regional): AT; BE; DE; ES; FR; GB; IT; LU; NL
Filing Details: ES2028417 Based on EP 351545
Abstract (Basic): EP 351545
The hip joint prosthesis acetabulum (8) receives the ball end (32) of the femur implant. The rim of the acetabulum is provided either with

a removable disc (2), or the spherical surface (20) of either the acetabulum, or the ball end (32) is provided with a layer (28,30) of protective material.

The material is such that it can be resorbed into the surrounding tissue of the patient's body and it has a hardness which is less than that of the surface (20,34), which it protects.

ADVANTAGE - No damage to acetabulum or ball end, and high service life. @(6pp Dwg.No.2,3/3

Abstract (EP): 9151 EP 351545

Artificial joint, more particularly an artificial hip joint, having a ball member (32) and a socket member (8) having an annular socket edge, the surface (34) of the ball member (32) abutting on an inner surface (20) of the socket member (8), characterised in that, on the surface (16) of the socket edge, there is a disc (2) which is to be removed after the ball member (32) has been located in the socket member (8), or in that at least the surface (16) of the socket edge or the surface (34) of the ball member (32) is provided with a protective coating (28,30) consisting of a material which can be absorbed by the body, and in that the material of the disc (2) or of the protective coating (28,30) is less hard than the material of the socket member (8) or ball member (32). @(6pp)@

Abstract (DE): 9015 DE 3824243

Possible damage during installation of a ceramic artificial hip joint is avoided by temporarily applying a split ring of softer resilient material to the generally flat rim round the socket cavity, e.g. by positive engagement of pins in small bores in the rim. The surgeon removes the ring over the femur shaft after installation. The inner edge of the ring tapers to aid ball entry.

As a further measure, surfaces of ball and socket are coated with material (e.g. gelatine) which is subsequently naturally restored.

USE - Esp. for oxide ceramic joints whose hardness and brittleness could result in small splinters detaching. @(4pp)@

Derwent Class: P32;

Int Pat Class: A61F-002/32

10/5,DE/15 (Item 14 from file: 351)

DIALOG(R)File 351:DERWENT WPI

007941318 WPI Acc No: 89-206430/28

XRPX Acc No: N89-157675

Synthetic knee ligament - has central active section made with lengthwise parallel and intermediate crossing elements

Index Terms: SYNTHETIC KNEE LIGAMENT CENTRAL ACTIVE SECTION MADE LENGTHWISE PARALLEL INTERMEDIATE CROSS ELEMENT

Patent Assignee: (RHEN/) RHENTER J L

Author (Inventor): COLLOMB J; RHENTER J; RHENTER J L

Number of Patents: 006

Number of Countries: 012

Patent Family:

CC	Number	Kind	Date	Week	
WO	8905614	A	890629	8928	(Basic)
FR	2624724	A	890623	8932	
EP	364507	A	900425	9017	
US	5078745	A	920107	9205	
EP	364507	B1	920708	9228	
DE	3872711	G	920813	9234	

Priority Data (CC No Date): FR 8718247 (871222); WO 88FR6347 (881222)

Applications (CC,No,Date): WO 88FR634 (881222); DE 3872711 (881222); WO

88FR634 (881222); EP 89900839 (881222); WO 88FR634 (881222); EP 89900839 (881222); US 415245 (880816)
Language: French
EP and/or WO Cited Patents: EP 236821; EP 239775; EP 249346; FR 2135825; FR 2213761; FR 2596641; FR 2598311; FR 2598315; US 4411027
Designated States
(National): JP; US
(Regional): AT; BE; CH; DE; FR; GB; IT; LU; NL; SE
Filing Details: DE3872711 Based on EP 364507; DE3872711 Based on WO 8905614; EP0364507 Based on WO 8905614
Abstract (Basic): WO 8905614

The synthetic knee ligament, made from a biocompatible material, consists of a central active section located between the ends of the femur and tibia, made in the form of outer parallel elements (1,2) and intermediate crossing elements (3,4), joined at their ends to form the main connections (21, 22 and 23, 24).

These connections engage with tunnels made through the ends of the femur and tibia and are joined to the bones. The ligament can be made in one piece from a suitable textile material. In a variant the various sections of the ligament can be joined together by plaiting, knitting or welding of the fibres.

ADVANTAGE - Improved performance. @(26pp Dwg.No.1/6

Abstract (US): 9205 US 5078745

The device ligament comprises first inactive end ties configured to be inserted into first tunnels bored in the femur. Second inactive end ties and configured to be inserted into second tunnels bored in the tibia, where the first ties are attached to the femur and extend from to the intra-articular area through the first tunnels. The second ties are attached to the tibia and extend from to the intra-articular area through said second tunnels.

An active midportion is intermediate the ends to be positioned in the intra- articular area of the knee joint . First and second parallel principal elements are integral at one end to the first ties and at an opposite end to said seconds ties. The principal elements have member for integral connection to each other. A pair of intermeidate crossed elements are freely crossed so as to integrally connect the first principal element to the second principal element, respectively.

USE/ADVANTAGE - Replacement of natural ligaments at the inra-articular area between femoral and tibial bones of a knee joint, including an elongated element terminating at opposite first and second ends. @(9pp

Abstract (EP): 9228 EP 364507 B

A biocompatible synthetic ligament for the knee, comprising an active part designed to be placed between the intra-articular femoral (9,10) and tibial (11,12) penetration areas, defining the entrances of tunnels (6a,6b,6c,6d) made in the femur (7) and in the tibia (8), respectively, and from the exit of which emerge the ends of said ligament, said ends forming ties (20,21,22,23) to be fixed to the femur (7) and to the tibia (8), respectively, said active part of the ligament comprising a first set of two principal elements (1,2) that are substantially parallel before implantation, extended by said ties (20,21,22,23), integral with each other at the level (24) of said active part of the ligament, wherein said active part of the ligament further comprises a second set of two intermediate elements (3,4) that are crossed at the level of said active part of the ligament and integral with first set of principal elements (1,2) starting from, and at the level of, the intra-articular femoral (9,10) and tibial (11,12) penetration areas, in the direction of the exit of said tunnels (6).

Dwg.1/6

Abstract (DE): 9234 DE 3872711 G
The synthetic knee ligament, made from a biocompatible material, consists of a central active section located between the ends of the femur and tibia, made in the form of outer parallel elements (1,2) and intermediate crossing elements (3,4), joined at their ends to form the main connections (21, 22 and 23, 24).
These connections engage with tunnels made through the ends of the femur and tibia and are joined to the bones. The ligament can be made in one piece from a suitable textile material. In a variant the various sections of the ligament can be joined together by plaiting, knitting or welding of the fibres.
ADVANTAGE - Improved performance
Derwent Class: P32;
Int Pat Class: A61F-002/08

10/5,DE/16 (Item 15 from file: 351)
DIALOG(R)File 351:DERWENT WPI

007774672 WPI Acc No: 89-039784/06
XRPX Acc No: N89-030491
Spacer for dental implants - has inner tube of biocompatible material to absorb screw fixing loads
Index Terms: SPACE DENTAL IMPLANT; INNER TUBE BIOCOMPATIBLE MATERIAL ABSORB SCREW FIX LOAD
Patent Assignee: (KEMA) NOBELPHARMA AB; (KEMA) NOBELPHARMA AB; (KEMA) NOBELPHARMA AB
Author (Inventor): BRAJNOVIC I; JORNEUS L
Number of Patents: 013
Number of Countries: 018
Patent Family:

CC	Number	Kind	Date	Week	
AU	8817568	A	881215	8906	(Basic)
JP	63318938	A	881227	8906	
SE	8702445	A	881213	8906	
SE	457769	B	890130	8907	
EP	320024	A	890614	8924	
US	4872839	A	891010	8950	
US	5000685	A	910319	9114	
US	5087200	A	920211	9209	
CA	1303392	C	920616	9230	
EP	320024	B1	931215	9350	
DE	3886366	G	940127	9405	
ES	2048195	T3	940316	9415	
US	5000685	B1	950523	9526	

Priority Data (CC No Date): SE 872445 (870612)
Applications (CC,No,Date): US 195334 (880518); US 417091 (891004); AU 8817568 (880610); JP 88143417 (880610); EP 88200901 (880506); US 195334 (880518); US 417091 (891004); US 614134 (901116); CA 566942 (880517); EP 88200901 (880506); DE 3886366 (880506); EP 88200901 (880506); EP 88200901 (880506)
Language: English; French
EP and/or WO Cited Patents: DE 1067975; EP 125203; EP 180247; US 4657510
Designated States (Regional): AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE
Filing Details: US5000685 Cont of US 4872839; DE3886366 Based on EP 320024; ES2048195 Based on EP 320024
Abstract (Basic): AU 8817568
The spacer for dental implants, of a bio-compatible material and

constitutes a connection element in a removable screw connection between an anchor (1) implanted in the maxillary beneath the gingiva. A dental prosthesis construction joint surface is disposed above the gingiva.

The spacer comprises an inner, sleeve-shaped spacer (4) of a bio-compatible material, preferably titanium, which is disposed to absorb the loadings of the screw connection. An outer spacer sleeve (12) of a tooth-like, bio-compatible material, preferably porcelain or ceramics, wholly or partly encloses the inner, sleeve-like spacer (4).

ADVANTAGE - Allows secure fixing of implants. @(12pp Dwg.No.1/2

Abstract (US): 9526 US 5000685 B

The spacer for dental implants of a bio-compatible material includes an inner sleeve-shaped spacer element (4) of titanium which is part of a screw connection between an anchorage element (fixture) (1) implanted in the maxillary beneath the gingiva, and a dental prosthesis construction whose joint surface (11) is located above the gingiva and which is disposed to absorb the loading of the screw connection.

The spacer further includes an outer spacer sleeve (12) of porcelain or ceramics which wholly or partly encloses the inner sleeve-like spacer element (4). The ceramic or porcelain sleeve may, by grinding and coating with porcelain of different colours, be caused to visually approximate dental cervix and gingiva, and, thereby, not contrast with the natural dental cervix colour and gingival colour to the same extent as does the titanium material.

The patentability of claims 1-5 is confirmed.

Dwg.1/1 9209 US 5087200

The spacer is for dental implants of a bio-compatible material. The spacer includes an inner sleeve-shaped spacer of titanium which is part of a screw connection between an anchorage element implanted in the auxillary beneath the gingiva, and a dental prosthesis construction whose joint surface is located above the gingiva and which is disposed to absorb the loading of the screw connection. The spacer further includes an outer spacer sleeve of porcelain or ceramics which wholly or partly encloses the inner sleeve-like spacer.

The ceramic or porcelain sleeve may, by grinding and coating with procelain of different colours, by caused by visually approximate a dental cervix and gingiva and, thereby, not contrast with the natural dental cervix colour and gingival colour to the same extent as does the titanium material. @(4pp)@ 9114 US 5000685

The spacer includes an inner sleeve-shaped spacer element (4) of titanium which is part of a screw connection between an anchorage element (fixture) (1) implanted in the maxillary beneath the gingiva. A dental prosthesis construction whose joint surface (11) is located above the gingiva and which is disposed to absorb the loading of the screw connections.

The spacer further includes an outer spacer sleeve (12) of porcelain or ceramics which wholly or partly encloses the inner sleeve-like element (4). The ceramic or porcelain sleeve may, by grinding and coating with porcelain of different colours, be caused to visually approximate a dental cervix and gingiva and, thereby, not contrast with the natural dental cervix colour and gingival colour to the same extent as does the titanium material.

USE - Is a spacer for dental implants of a bio-compatible material. @(4pp)@ 8950 US 4872839

An inner sleeve-shaped spacer element of titanium is part of a screw connection between an anchorage element implanted in the maxillary beneath the gingiva and a dental prosthesis construction whose joint surface is located above the gingiva and which is disposed to absorb the loading of the screw connection. The spacer

includes an outer spacer sleeve of porcelain or ceramics which wholly or partly encloses the inner sleeve-shaped spacer element.

The ceramic or porcelain sleeve may, by grinding and coating with porcelain of different colours, be caused to visually approximate a dental cervix and gingiva. It does not contrast with the natural dental cervix colour and gingival colour.

USE - Spacer for dental implants of a bio-compatible material.

@(4pp

Abstract (EP): 9350 EP 320024 B

A spacer for dental implants made of a biocompatible material and constituting a connection element in a removable screw connection between an anchorage element (fixture) (1) which can be implanted in the maxillary beneath the gingiva, and a dental prosthesis construction whose joint surface (11) can be disposed above the gingiva, said spacer comprising an inner spacer element (4) of a bio-compatible, load-absorbing material such as titanium and having a lower, tapering portion (8) for gingival penetration anchored to the upper region of the fixture by means of a spacer screw (5) and an upper cylindrical portion (9) which can project above the gingival edge (10) characterised in that the upper cylindrical portion (9) has a recess (13) with an additional outer spacer sleeve (12) of a toothlike, a biocompatible material such as porcelain or ceramics for individual detail adaption to the prevailing situation in the mouth of the patient, which wholly or partly encloses the inner spacer element (4) without being subjected to any loading and also constituting a seal against a screw passage (20) in case of an angulated spacer element (18).

Dwg.1/2

Derwent Class: P32;
Int Pat Class: A61C-008/00; A61C-013/22

10/5,DE/17 (Item 16 from file: 351)
DIALOG(R)File 351:DERWENT WPI

007261329 WPI Acc No: 87-258336/37
XRAM Acc No: C87-109317
XRPX Acc No: N87-193429

One-piece hip-joint socket prosthesis - of valve metal with natural oxide coating contg. calcium phosphate at surface

Index Terms: ONE PIECE HIP JOINT SOCKET PROSTHESIS; VALVE METAL NATURAL OXIDE COATING CONTAIN CALCIUM PHOSPHATE SURFACE

Patent Assignee: (UYMA-) TECH UNIV MARX K; (TEHO-) TECH HOCH MARX K; (UYCH-) TECH UNIV CHEMNITZ; (UYTE-) TECH UNIV CHEMNITZ

Author (Inventor): KURZE P; RABENDING K; KRYSMANN W; DANIEL P; WEHNER W; POLSTER M; MORGENSTER R

Number of Patents: 005

Patent Family:

CC	Number	Kind	Date	Week	
EP	237053	A	870916	8737	(Basic)
DD	246476	A	870610	8743	
US	4801300	A	890131	8907	
EP	237053	B	910619	9125	
DE	3770838	G	910725	9131	

Priority Data (CC No Date): DD 287801 (860312)
Applications (CC,No,Date): EP 87103530 (870311); US 137392 (871223)
Language: German
EP and/or WO Cited Patents: A3...8807; DE 3446048; EP 211676; FR 2310322; FR 2548661; A3...8908; JP 60249146; DE 3226608; EP 203613; EP 174634;

1.Jnl.REF
Designated States
(Regional): AT; BE; CH; DE; FR; GB; IT; LI; NL; SE
Filing Details: US4801300 (+26.2.87-US-019408) (397MM)
Abstract (Basic): EP 237053

A one-piece, cement-free, anchorable, biocompatible hip-joint socket is formed from a valve metal, at least two-thirds of the circumference being surrounded by a perforated flange ringfor anchoring purposes. The surface facing the pelvic bone has a porous natural oxide layer with a calcium phosphate content at the rim of over 40%, while the surface facing the joint is coated with an inner layer of mechanically compacted, finely porous, natural oxide and an outer layer of finely porous resistant natural oxide contg. 10-30% calcium phosphate at its rim.

ADVANTAGE - The socket has low volume, high mechanical stability, good sliding properties and high biocompatibility . It has long life and minimises the need for further implant operationsso that it can be used in young patients. No additional measures, such as bone cement, pelvic osteotomy or socket roof plastics, are required, desirable conditions for joint fluid retention and transport are provided and any wear of the phosphates or oxides is resorbed without problems. @(7pp Dwg.No.0/0)@

Abstract (US): 8907 US 4801300

A single-piece biocompatible hip-joint socket which can be secured without the use of cement has a convex surface for facing the pelvic bone and a concave surface for facing the hip joint .

The convex surface comprises TiOx or Ta2O5 contg. at least 40% of calcium phosphate in the surface zone. The concave surface is formed with a first layer of compacted finest-pored TiOx or Ta2O5 and an overlying abrasion resistant layer of TiOx or Ta2O5 contg. 10-30% of calcium phosphate in the surface zone.

ADVANTAGE - The joint is easily filled and offers a long residence time without loosening or inflammation. @(6pp

Abstract (EP): 9125 EP 237053

A one-piece non-cementitious anchorable and bio-compatible acetabular cup to be combined with an acetabular condyle, characterised in that the acetabular cup is made from tantalum, titanium or alloys thereof and comprises along at least two thirds of its circumference a perforated flanged ring for the anchorage and is provided on its surface facing the pelvic bone with a characteristic ocide layer having pores and containing more than 40% of calcium phosphate and carries on the cup surface proximal to the joint a duplex laminate, the metallic side of said duplex laminate carrying a mechanically consolidated superfine-pored characteristic oxide layer and thereupon a fine-pored non-abrasive characteristic oxide sliding layer having pores and containing 10 to 30% of calcium phosphate. @(3pp)@

File Segment: CPI
Derwent Class: D22; L02; M13; P32; P34
Int Pat Class: A61F-002/34; A61L-027/00
Manual Codes (CPI/A-N): D09-C01D; L02-J01E; M14-D01

10/5,DE/18 (Item 17 from file: 351)
DIALOG(R)File 351:DERWENT WPI

004735438 WPI Acc No: 86-238780/36
XRAM Acc No: C86-102737

Neovascularisation inhibitor - produced by culturing retinal pigment epithelial cells

Index Terms: NEOVASCULARISATION INHIBIT PRODUCE CULTURE RETINA PIGMENT EPITHELIUM CELL
Patent Assignee: (UYJO) UNIV JOHNS HOPKINS; (GLAS/) GLASER B M
Author (Inventor): GLASER B M
Number of Patents: 012
Number of Countries: 018
Patent Family:

CC	Number	Kind	Date	Week	
WO	8604783	A	860828	8636	(Basic)
AU	8654553	A	860910	8649	
JP	61246132	A	861101	8650	
ZA	8601403	A	861112	8704	
NO	8604254	A	870105	8708	
EP	213180	A	870311	8710	
FI	8604293	A	861023	8731	
DK	8605092	A	861024	8748	
US	4996159	A	910226	9111	
EP	213180	B1	921007	9241	
DE	3686927	G	921112	9247	
EP	213180	A4	890215	9348	

Priority Data (CC No Date): US 706259 (850226)
Applications (CC,No,Date): WO 86US312 (860214); JP 8640115 (860225); ZA 861403 (860225); EP 86901626 (860214); US 471024 (900126); EP 86901626 (860214); WO 86US312 (860214); DE 3686927 (860214); EP 86901626 (860214); WO 86US312 (860214); EP 86901626 (860214)
Language: English
EP and/or WO Cited Patents: 3.Jnl.Ref; US 30239; US 4042457; US 4176177; US 4356261; US 4534967; No-Citns.
Designated States
(National): AU; DK; FI; NO
(Regional): AT; BE; CH; DE; FR; GB; IT; LU; NL; SE; LI
Filing Details: EP0213180 Based on WO 8604783; DE3686927 Based on EP 213180; DE3686927 Based on WO 8604783

Abstract (Basic): WO 8604783 A

Mfr. of neovascularisation inhibitor (I) comprises culturing retinal pigment epithelial cells to produce a culture medium contg. (I) and recovering (I). The retinal pigment epithelial cells, are obtd. from animal cells that lack tapetum, pref. human or pig eyes. In a prefd. method, (I) is produced by growing human retinal pigment epithelial cells in a serum-contg. culture medium to superconfluence, removing the medium from the cells, adding serum free medium to the cells and continuing to grow the cells, sepg. the medium from the cells, subjecting the sepd. medium to acid dialysis, purifying (I) in the dialysate by hydrolyphobic interaction chromatography and purifying (I) by size exclusion chromatography. Human fibroblast cells may be used in place of retinal pigment epithelial cells.

USE - (I) can be used to inhibit neovascularisation in diabetic retinopathy and senile macular degeneration. They can be used to inhibit the formation of blood vessels supplying invading tumours and to prevent the invasion of articular cartilage in rheumatoid joints by neovascular tissue. (I) can be used to inhibit neovascularisation where excessive scarring of the skin, gut or other body organs causes problems. (I) can also be used to control other disorders in which neovascularisation during wound healing causes problems, such as occurs in corneal neovascularisation following a number of corneal insults by trauma, infections and degenerations.

Abstract (US): 9111 US 4996159

New process for prodn. neovascularization inhibitors comprises culturing retinal pigment epithelial cells and sepn. purificn. neovascularization inhibitor polypeptide from medium. It has MW. 57000

+/- 3000 isoelectric pt. 4.6 +/- 0.3 and is stable at pH 2-3.
Purificn. may be by reverse phase hydrophilic interaction chromatography and dialysis. Sepn. may be by contact with immobilised antibodies (polyclonal or monoclonal). Retinal pigment epithelial cells may be from animal eyes lacking a tapetum (pigs eyes) or human eyes.
USE - Treatment of diseases involving new blood vessel formation e.g. diabetic retinopathy senile mascular degeneration, tumour growth, rheumatoid arthritis and excessive scarring during wound healing.
@(10pp)@

Abstract (EP): 9241 EP 213180 B
A process for producing a neovascularisation inhibitor comprising the steps of: culturing retinal pigment epithelial cells to produce a culture medium containing said neovascularisation inhibitor; recovering said neovascularisation inhibitor from said culture media; and purifying said neovascularisation inhibitor, wherein said neovascularisation inhibitor has a molecular weight of approximately 57,000 +/- 3,000 and an isoelectric point of approximately 4.6 +/- 0.3 and is stable in an environment with a pH of approximately from 2 to 3.
Dwg.0/0

File Segment: CPI
Derwent Class: B04; D16; P13;
Int Pat Class: A01H-000/00; A01N-063/02; A61K-035/12; A61K-037/02; C07K-003/00; C07K-015/06; C12N-000/00; C12P-021/00
Manual Codes (CPI/A-N): B04-B04A3; B04-B04L; B11-C08D2; B12-A07; B12-D09; B12-E01; B12-G07; B12-H05; B12-J01; B12-L04; D05-H08
Chemical Fragment Codes (M1):
01 M423 M720 M903 N136 N161 N421 N513 P421 P423 P520 P617 P633 P922 P942 Q233 V901

10/5,DE/19 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

03523372
BIOIMPLANT MEMBER

PUB. NO.: 03-186272 [JP 3186272 A]
PUBLISHED: August 14, 1991 (19910814)
INVENTOR(s): NODA IWAO
APPLICANT(s): KYOCERA CORP [358923] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 01-328070 [JP 89328070]
FILED: December 18, 1989 (19891218)
INTL CLASS: [5] A61L-027/00; A61C-008/00; A61F-002/28; A61F-002/30
JAPIO CLASS: 28.2 (SANITATION -- Medical)
JOURNAL: Section: C, Section No. 883, Vol. 15, No. 440, Pg. 35, November 11, 1991 (19911111)

ABSTRACT

PURPOSE: To obtain the fixing force stable and secure over a long period of time in a bone by forming a recessed part on at least the joint surface of the bioimplant member with the bone and providing a coating layer of a calcium phosphate material, such as hydroxyapatite on the joint surface including the inside of this recessed part.

CONSTITUTION: The recessed part is formed on at least the joint surface of the bioimplant member, such as artificial bone, artificial joint or artificial dental root, consisting of a ceramic material, such as alumina or zirconia and a metallic material, such as pure

titanium or titanium alloy, and the calcium phosphate, such as hydroxyapatite, is formed on the joint surface including the inside of this recessed part. The growth and infiltration of the bone into this recessed part are induced in this way and the fatigue load is received not by the coating layer but by the bone infiltering the recessed part itself. Thus, the secure fixability in the bone is imparted to the implant over a long period of time.

10/5,DE/20 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO

03369775
BIOIMPLANTING MATERIAL AND PRODUCTION THEREOF

PUB. NO.: 03-032675 [JP 3032675 A]
PUBLISHED: February 13, 1991 (19910213)
INVENTOR(s): NODA IWAO
APPLICANT(s): KYOCERA CORP [358923] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 01-170950 [JP 89170950]
FILED: June 30, 1989 (19890630)
INTL CLASS: [5] A61L-027/00
JAPIO CLASS: 28.2 (SANITATION -- Medical)
JOURNAL: Section: C, Section No. 825, Vol. 15, No. 154, Pg. 158, April 18, 1991 (19910418)

ABSTRACT

PURPOSE: To increase the strength, to allow the easy surface roughening and to obtain the adhesive power to allow the use of the above material as an implanting material by providing a ceramics base body and a glass layer as an intermediate bonding layer of an apatite layer.

CONSTITUTION: The base body of the bioimplanting such as artificial bone, artificial joint and artificial tooth root, is constituted of ceramics materials, such as alumina single crystal, polycrystalline alumina and zirconia, a glass layer is applied on a joint surface of the base body and at least bone, and further the thermally sprayed layer of a calcium phosphate material, such as hydroxyapatite, on this glass layer. A glass slurry is applied on the ceramics base body consisting of alumina, zirconia, etc., and is calcined to coat the glass layer. The surface of this glass layer is roughened by sane-blasting and thereafter the apatite is thermally sprayed thereon; further the thermally sprayed layer is calcined to intensify the adhesive strength of the apatite layer. Namely, the glass layer infilters partly into the pores in the apatite layer at the time of the calcination to intensify the adhesive strength of the glass layer and the apatite layer.

10/5,DE/21 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00486590
Articular cartilage repair piece.
PATENT ASSIGNEE:
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PATENT (CC, No, Kind, Date): EP 528080 A1 930224 (Basic)
APPLICATION (CC, No, Date): EP 91307323 910809;
PRIORITY DATA (CC, No, Date): EP 91307323 910809
LANGUAGE (Publication,Procedural,Application): English; English; English
DESIGNATED STATES: DE; ES; FR; GB; IT
INTL PAT CLASS: A61F-002/30; A61F-002/38; A61L-027/00; A61B-017/58; A61L-031/00;
CITED PATENTS (EP A): EP 336861 A; EP 372811 A; US 4898186 A; FR 2642301 A; DE 2933174 A; US 4158684 A; US 4642120 A; GB 2175506 A; US 4502161 A
WORD COUNT: 149

ABSTRACT: EP 528080 A1
An articular cartilage repair piece (25) to replace a cut-out piece (24) of damaged (23) articular cartilage (22) on a bone (F) in an articulated joint (10) in a mammal includes a backing layer (30) of non-woven, felted fibrous material which is conformable to flat and curved surfaces. The front face (32) of the backing layer (30) is covered by a coating (33) of tough pliable material having front surfaces (35) which is tough, smooth and slippery in the presence of the natural synovial fluid of the joint (10) and responds naturally as the repair site interfaces with underlying meniscus cartilage (16,17) or articulair cartilage of an opposing surface through articulating motion in the joint (10) of a patient.
The repair piece (25) is temporarily fixed in place by resorbable pins (43) passing through the backing layer (30) and the coating (33). (see image in original document)

LEGAL STATUS (Type, Pub Date, Kind, Text):
Application: 930224 A1 Published application (A1withSR;A2withoutSR)
Withdrawal: 940504 A1 Date on which the European patent application was deemed to be withdrawn: 930824
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